UNIVERSITY OF ALBERTA

ADMINISTRATIVE AND IMPLEMENTATION ISSUES AT YCMOU, AN INDIAN OPEN AND DISTANCE EDUCATION UNIVERSITY

by

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ABSTRACT

This study used an instrumental case study to understand the major issues encountered by administrators and how they were addressed in order to successfully implement online learning at YCMOU.

YCMOU is a mega open university with eight schools: education, agricultural science, computer science, health science, humanities and social science, continuing education, commerce and management, and science and technology. Eight regional centers, 1500 study centers, about 4500 teacher counsellors and about 600,000 students. Its mission is 'Reaching the unreached'.

Using semi-structured interviews, discussions, observations, official documents and survey data were gathered from February 2002 to June 2004. The analysis was an ongoing process. Based on the issues four themes emerged from the inductive analysis of the issues related by the administrators at YCMOU, regional centers and the study centers. They were Sustainability, Quality, Organization and Learner Support system.

Sustainability for YCMOU involved balancing its activities in developing and strengthening its mission, planning its implementation, and working with the environmental pressures of state and national politics Quality involves the presence of quality in the mission statement and the ongoing objectives of the schools and its actual implementation through quality assurance activities in some schools. Organization includes issues of structure, coordination and partnerships. Learner support systems require a holistic approach to this essential service. It involves most of the people in the organization in some capacity from course development and production to registration and accounting as well as counselling and handling student problems. Students' concerns.

Recommendations include orientation to new faculty, avoidance of single blue print system, expansion of partnerships, and streamlining of processes that encourage better communication among schools, regional centres and study centres. Lastly to ensure greater student success, more training should be provided to teacher counsellors.

Since this study is about a large-scale distance education institution, there is a great amount of relevance with Peter's (1998) Industrialization process, where Peters suggestion for administrators to make a shift from the hierarchical form of functioning to the horizontal model. He further asserts to consider Gestalts view on Whole-Part Whole method, where each department work in developing specialized skills in a holistic manner in order to be effective. In short a specialist should be aware of the learner needs and develop course material likewise. Peters message to the administrators of large scale distance educational institutions to balance the teaching-learning process in the post industrialized age is pertinent for this study.

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Chapter 1

INTRODUCTION TO THE STUDY

India, the world's second most populous country, is a multilingual, multicultural nation of over one billion people. Following Independence in 1949, the rapid development of the Indian economy has continually increased the pressure for post-secondary education and for qualified workers. India's population is one of disparities: Almost half of the population is illiterate, yet there is a growing demand for post-secondary education. The total number of adult illiterates is about 90 million of whom 58 million are women (GOI, 2000; Srivastava, 2000). Despite advances since Independence, there have been insufficient spaces for qualified applicants and in particular, women, rural students and the status disadvantaged.

In 1976, the government decided to explore the possibilities of distance education at both elementary-secondary and post-secondary levels. Distance education is the term used to describe formal learning opportunities where students study independently from materials provided by the institution and receive regular guidance from academic counsellors or tutors usually in face-to-face settings. Today, more states are establishing open universities and traditional universities are also turning to flexible learning and distance education to provide options for learners. Organizations that originally focused on print materials are now using the Internet and web-based courses in order to keep up with the increasing demand for further education especially in fields such as engineering and computer science. Despite India's experience with distance education, the vast numbers involved in any distance education program have resulted in administrative concerns. With the inclusion of the "knowledge media" it is likely that further administrative issues will arise and need to be addressed. India needs to learn from those experiences in order to provide a smoothly functioning system. This study examines the administrative issues involved in the development of online learning in one dedicated Open University in India, Yashwantrao Chavan Maharashtra Open University (YCMOU).

THE INDIAN CONTEXT

India is a country of diversity. While India has large cities such as Delhi, Calcutta, and Mumbai with populations in the millions, almost three quarters of her population lives in villages. Since Independence, India's economy has developed rapidly from one where she was (and still is) a predominantly agricultural country and major exporter of raw materials to where her manufacturing sector has positioned her as one of the world's top ten industrial countries. This has been due in part to the economic reforms of the 1990s, which removed central controls and encouraged local development and foreign exports (Economic Times, 2000). The rapid progress in the industrial sector has led in turn to a high demand for technology-based education.

The present scenario of higher education is overwhelming; in the sense that due to the growth of the Indian population, there is a growing imbalance between the intake of students and those seeking places in higher education. In 1950-51, when the first five-year plan was introduced, there were 27 universities catering to 174,000 students. Now the figures have risen dramatically so that in 2001 there are 273 universities, 12,300 colleges and 7,417,000 students and 342,000 teachers (GOI, 2001, p. 53). In addition, there are 16 central universities maintained and funded by the central government and 37 deemed universities, meaning institutions of higher learning recognized as universities with their own sources of funding in addition to government grants.

Despite these facilities, the government has been unable to manage the phenomenal increase in demand for higher education. Hence in 1990 the government introduced privatization of colleges. Colleges include private colleges, government colleges, university colleges and professional colleges. These are further classified as "Private-aided" and "Private-unaided." Although government recognizes the education in the latter, it does not provide any form of funding to the unaided colleges. This has resulted in a mushrooming of colleges to cater to these students, unfortunately leading to an expensive means of education. Students are ready to pay any amount as fees to these private unaided colleges to get a seat. Essentially, the universities and colleges started losing students when there was an increase in colleges offering education as a means of business rather than in pursuit of knowledge. The quality of education deteriorated, and due to the increase in class size, only a few students were academically motivated. Also the relevance of these college degrees was lost because they were not useful in the world of work. This disparity between education and the world of work led to unemployment in the country. It was not that there were no jobs but the jobs did not match the educational qualifications of these students. Apart from this, the major issue of equity in education also remains unsolved. Although the committees recommended some concessions in educational entry to those in Backward Classes and through the use of reserved seats, the mission remains unfulfilled because these students tend to drop out or the quotas remain unfilled. (The Backward classes category includes in it the groups who belonged to the Varna and the Shudra castes, former untouchables who converted from Hinduism to other religions, nomads and other undesignated groups) Meanwhile others in the upper classes clamor to obtain positions. Thus one can see that the major issues and concerns related to access, equity and cost remain unanswered.

India follows a 10 + 2 secondary and higher secondary education system involving ten years of schooling and 2 years pre-university. These two years are offered in high schools as well as in university colleges. Most students prefer to attend colleges so that if successful, they can continue for the three-year undergraduate program. There are options for vocational training and for education in English or in any vernacular (mother tongue) Indian language. The pre-university program may be followed by 3 to 5 years of professional undergraduate education (3 years for Science/Humanities/Business degrees (B.Sc., Bachelor of. Statistics, B.A., B.Com.); 4 years for Engineering degrees, (Bachelor of Technology.); and 5 years for Medical degrees (M.B.B.S). Graduate studies comprise a Master's degree (M.Sc., M.A., M.Tech., M. Stat., M.Com. M.D., M. Phil.) usually of 2 years and a Doctor of Philosophy degree (Ph.D.) in different disciplines. There are numerous excellent research centres (both private and government funded) all over the country, which cater to graduates' research needs (Press Information Bureau, Government of India, 2001). Despite all these facilities, and the significant improvements made, India still struggles to overcome access and equity issues and keep pace with the other developed countries. Despite the number of post-secondary institutions, only 6% of the 18-23 year age group is enrolled. Increasing these numbers is one of the initiatives of the government's Tenth Plan (GOI, 2001, p. 54).

STATEMENT OF THE PROBLEM

The focus of this study, therefore, concerns the administrative issues in implementing web-based learning in an Indian mega-university.Using a case study approach, I examined the adoption of online learning in one of the largest and longest established open universities, Yashwantrao Chavan Maharashtra Open University (YCMOU). This university has recently begun to offer online and Internet based aspects to its courses and the administrative preparation undertaken prior to course delivery, the issues it faced during course preparation, and the student support services it had to deploy, provide valuable information for other universities. A case study approach allowed me to first explore the present administrative structures in place for the majority of programs that do not employ computer-based learning. Then I focused more specifically on the planning and implementation of the online aspects. This provided me with points of comparison which I then explored in order to identify crucial administrative issues which must be addressed in implementing online education.

RESEARCH QUESTIONS

The guiding question for my study was:

What were the major administrative issues encountered and how were they being addressed in order to successfully implement online learning at YCMOU?

In ethnographic case studies, the questions form a funnel (Owen, 1982) starting with broad general questions and gradually narrowing the focus as the study proceeds. These were my initial questions.

1. *Structure and context*: What were the administrative and organizational structures of YCMOU and how did they operate?
2. What was the history of distance education development at YCMOU?
3. What was the role of the study centres in the provision of distance learning?

Consideration of online learning:

4. What social, political and economic considerations had to be taken into account in deciding to adopt online learning?
5. What were the major administrative issues concerning technology implementation facing YCMOU?
6. How was the implementation of online learning decided? Which schools were involved and why?

Implementation:

7. What issues were identified and how were they resolved in the initial implementation?
8. How were the study centres involved in online learning?
9. What most influenced the successful implementation of online learning?
10. To what extent were administrators, faculty and students pleased with the operation of online learning?
11. What issues remain?

NEED FOR AND SIGNIFICANCE OF THE STUDY

A collection of books and articles identify general concerns related to distance and open education. However, there has been comparatively little written in particular about the administration of distance learning systems. Exceptions include Paul (1990) and Rumble (1992). Paul provided a useful explanation of what he viewed as problems and challenges facing leaders of open learning organizations although he focused mainly on university presidents and Rumble (1992) presented issues and choices facing educational planners and administrators interested in embarking on the establishment of distance learning systems. He focuses mainly on planning, organizing and controlling functions. Rumble (1992b) identified three specific subsystems that comprise distance education systems: a student-learner subsystem, a materials subsystem, and an administrative subsystem. He highlighted different issues related to each that may pose challenges for managers due to the physical separation of students from teachers. Markowitz (1990) also explored a broad range of management issues in higher education but avoided any detailed or critical discussion of these issues. Albrecht and Bradsley (1994) emphasized the importance of comprehensive and coordinated planning to minimize social, political, and financial costs associated with distance education initiatives.

More recently, Daniel (1999), the former Vice-Chancellor of the British Open University, provided a second edition to his book on mega-universities and knowledge-media, which he began in 1971 as his Masters project in Educational Technology. He defines mega-universities as those with over 100,000 active students and in 1994 when he gathered his data, the only Indian university included was IGNOU. Today, three Indian universities, IGNOU, BRAOU, and YCMOU would be included. Daniel discusses what he considers to be the three crucial aspects of the operating systems of mega universities: "The mega-universities depend on systems that support three outcomes: good learning materials, effective student support, and efficient logistics" (p. 40). Daniel believes that in order to ensure the " performance and reputation" of mega-universities involved in distance education, they will have to achieve these three outcomes while keeping focused on enhancing cost-effectiveness. Bates (2000) has focused more narrowly on the importance of technological change for higher education institutions and strategies for change. He suggests " a number of planning, management and organizational strategies…to facilitate the effective use of new technologies for learning" (p. xiii). While his focus is on traditional universities who may be contemplating a move to flexible learning options, his advice provided a source of comparison for the work being undertaken at YCMOU. In addition, there are a number of studies which describe the status of particular Indian open universities. Overall, however, most of the studies undertaken relate to management issues in general, many are expository or descriptive, and most do not discuss management of online education. This increases the importance of my study since I hope to contribute to our understanding of management issues at a distance education mega-university.

In India, the lack of a focus on online education is not surprising since the offering of online courses only began in 1999. Sharma (2001) described the issues and concerns in launching IGNOU's online program. Sharma has touched upon the overall issues and special initiatives taken by Indira Gandhi Open University to cater to student needs. He focuses on management courses offered by IGNOU and in particular the online programs which started in 1999. Based on IGNOU, Sharma's study has identified issues associated with the introduction of online programs but it does not focus on the administrative concerns and issues.

Given the continued importance of the availability of professional programs in online education, Indian planners and administrators need to be aware of the knowledge gained by other institutions in order to make rapid progress. This study, which documents the issues, activities and concerns of administering programs including online programs at YCMOU, should provide useful information for other open universities and be an institutional resource for YCMOU. It will also contribute to the small body of literature in the area of distance education management

ASSUMPTIONS

In undertaking this study the following assumptions were made:

YCMOU was an appropriate site to research.

The administrators and the faculty interviewed possessed the necessary information required for the purpose of this study and felt free to share this information.

Those interviewed were comfortable with the methodology and willing to be tape-recorded.

The issues pertaining to management of distance education at the three levels: centre, regional centres and study centres, would provide appropriate recommendations, useful to other states and centres.

OUTLINE OF THE STUDY

The literature review, which examines the literature concerning management of distance learning and the advent of online learning in India, is discussed in Chapter 2. The following chapter contains the outline of the research design and a discussion of my fieldwork. Chapter 4 explicates the context of the case study. The findings chapters focus on the senior administrators and the five-year plans in Chapter 5, the Heads of School and faculty in Chapter 6, and the staff at the regional and study centres in Chapter 7. Chapter 8 provides an analysis based on the major themes of sustainability, organization, quality and student support. and the linking of the findings with the literature An overview of the study, and some recommendations are in Chapter 9.

Chapter 2

REVIEW OF RELATED LITERATURE

The growth of distance learning, from correspondence education to the present-day online education, has resulted in an alternative form of education parallel to conventional education. It has been called distance education, open learning, distributed learning and flexible learning, each term emphasizing different aspects of the concept.

Distance education refers to the formal facilitation of learning through the provision of instruction using various media and where the learner and instructor are separated for most or all of the time. Initially the emphasis was on distance and the need to overcome distance as a barrier to learning. Open learning is a form of distance education where the emphasis is on open access, either on the elimination of specific entry qualifications or on the opportunity for learners to access courses beginning at any time throughout the year, or both. Distributed learning focuses on the opportunity for students to access information from their home computers or video-conferencing sites and flexible learning also refers to this provision but stresses the combination of face-to-face and mediated learning opportunities within the same course, a situation growing rapidly in conventional universities.

Conceptual confusion is created with the advent of new terminology (virtual, open, distributed and flexible education), new technologies, new program demands and new commercially competitive providers. These developments present challenges to educators to make sense of the distance educational options available (Garrison, 2001).

As background to this study, I have focused on the development of distance education theories, the administration of distance education institutions and the Indian research in this area.

DISTANCE EDUCATION: THEORETICAL BACKGROUND

In the last three decades there has been a tremendous change and growth in the field of distance education. Originally starting with conventional correspondence study and today grappling with the technological revolution and globalization, distance education theorists have moved their orientation from being teacher or institution-centered to being student centered. The distance education institutions that now operate are generally designed in response to a particular set of issues in a specific context. In India, the extensive use of print has been linked to the uneven development of other forms of multimedia and the traditional university structure has been replicated in distance-oriented institutions. However, the orientations of various distance education theorists provide a focus for the major questions involving distance education.

DEFINING DISTANCE

A number of researchers and theorists have contributed a great deal to the field. Borje Holmberg (1989), Otto Peters (1981), Charles Wedemeyer (1971), Desmond Keegan (1983) and Michael G. Moore (1989) have made strides toward establishing definitions and understandings of distance education as a distinct field of study.

Holmberg stressed the importance of pedagogy and of providing access to individuals. Wedemeyer took a more learner-centered approach and stressed the greater importance on independence. Moore combined these two orientations to form his theory of transactional distance. Later, Peters defined distance education as an industrialized process, while Keegan took a middle ground approach. More recently, Garrison returned to the importance of pedagogy and highlighted the importance of two-way communication.

Theoreticians like Holmberg, Keegan and Rumble have explored the underlying assumptions of what it is that makes distance education different from traditional education. With an early vision of what it meant to be a non-traditional learner, these pioneers in distance education defined the distance learner as one who is physically separated from the teacher (Rumble, 1986), has a planned and guided learning experience (Holmberg, 1986), and participates in a two-way structured form of distance education which is distinct from the traditional form of classroom instruction (Keegan, 1988). In order to justify the importance of this non-traditional kind of education, early theoretical approaches attempted to define the important and unique attributes of distance education.

HISTORICAL APPROACHES

Keegan (1986) identified three historical approaches to the development of a theory of distance education. Theories of autonomy and independence from the 1960s and 1970s, argued by Wedemeyer (1977) and Moore (1973), reflect the essential component of the independence of the learner. Theories of interaction and communication formulated by Baath (1982), Sewart (1987), and Daniel and Marquis (1979) focus on the relationship between autonomy and interdependence. Organizational models like Peters stressed the linked realities of structure and economics. Keegan integrates these in a conception of industrialized, open, non-traditional learning which, Keegan proposed, would change the practice of education.

Keegan's (1986) definition consists of seven elements which state the need for teacher-student separation, the influence of educational organizations in planning and preparation of learning materials, use of audio-visual technical aids, interaction between teacher and student, an orientation to individuals rather than groups, the presence of industrialized features and lastly, privatization of institutional learning.

Keegan insists that distance education is characterized by the separation of the teaching acts in time and place from the learning acts. He proposed a more industrialized form of education and diverges from Holmberg and Moore who seem to view separation as both an advantage and a challenge to the autonomous learner. Keegan's middle ground approach comes from a combination of Holmberg's and Moore's pedagogical models and Peter's industrialized model.

PEDAGOGICAL DISTANCE

Theorists have also focused on the pedagogical aspects of distance education. This approach studies the effect that pedagogical, not necessarily geographic, distance has on instruction, learners, the teachers, the forms of communication and interaction, the curriculum, and the management of the program (Moore & Kearsley, 1996). The theories propose that teachers, learners, and educational organizations can help overcome pedagogical distance, which is caused by understandings and perceptions of geographic distance, through procedures of instructional design and interaction opportunities.

Independent Study

Charles Wedemeyer laid great emphasis on independence. He uses the term independent learning and distance education in comparable ways. According to Wedemeyer, independent study was a shift from the world of correspondence study, dominated by organizational and administrative concerns. Wedemeyer was a great advocate of freedom and choice for the learner. Wedemeyer (1981) identifies essential elements of independent learning as greater student responsibility, widely available instruction, an effective mix of media and methods, adaptation to individual differences, and a wide variety of start, stop and learn times. Some writers believed that independent students should be free to pace their learning according to their own circumstances and needs and free to choose among various channels or resources for learning. Wedemeyer was writing at a time when correspondence education was a one-way process, where materials were sent to the students and they were asked to submit assignments. His theory was criticized because it focused on individual study rather than group instruction.

Guided Didactic Conversation

Holmberg is another pioneer like Charles Wedemeyer who highlights the importance of pedagogy through the interaction between teacher and student. According to Holmberg (1986), there are two distinct philosophies regarding student independence:

> that some distance teaching institutions largely expect and base their work on the assumed prevalence of the student's capacity to work independently whereas others endeavor more to develop a degree of independence not expected to be of ordinary occurrence among new students. (p. 28)

In the first approach, teaching is regarded as the transmission of information and contact with a tutor occurs only when absolutely necessary. In the second approach, teaching facilitates independent learning through a sustained transaction between student and teacher.

Holmberg feels that his theory of guided didactic conversation is likely to influence students' achievements and attitudes. His main assumption regarding didactic conversation is that real learning is an individual activity and is attained through an internalizing process. Holmberg (1995) believes that if a distance-study course consistently represents a communication process that is felt to have the character of a conversation, then the students will be more motivated and more successful than if the course studied has an impersonal textbook character. Holmberg's guided didactic conversation approach refers to both real and simulated conversations, although the reliance is more on simulated conversation. As such, the emphasis is very much on the content and conversational character of the written pre-produced course package. Holmberg (1989) does acknowledge that regardless of how conversational the pre-produced course is, "communication between the student and the distance tutor has essential tasks" (p. 64). However, real conversation with the tutor is, by economic necessity, supplementary to the pre-produced course.

Holmberg's theory posits distance education as "friendly conversation [fostered by] well-developed self-instructional materials [resulting in] feelings of personal relation, ... intellectual pleasure [and] study motivation" (p. 62). It is the responsibility of course developers to create this simulated conversation through well-written materials. He stresses the guided conversation between the teacher and the student and believes that this will motivate the students and help them engage in their conversation with their tutors through the text. Holmberg (1989) calls for foundations of theory construction around the concepts of independence, learning, and teaching.

> Meaningful learning, which anchors new learning matter in the cognitive structures, not rote learning, is the centre of interest. Teaching is taken to mean facilitation of learning. Individualization of teaching and learning, encouragement of critical thinking, and far-reaching student autonomy are integrated with this view of learning and teaching. (Holmberg, 1989, p. 161)

Holmberg summarizes his theoretical approach by stating that,

> Distance education is a concept that covers the learning-teaching activities in the cognitive and/or psychomotor and affective domains of an individual learner and a supporting organization. It is characterized by non-contiguous communication and can be carried out anywhere and at any time, which makes it attractive to adults with professional and social commitments. (1989, p. 168)

Although Holmberg initially developed his theory in response to the traditional correspondence format, his emphasis on conversation has become more realizable with the advent of popular communications technologies such as the telephone and computer -based interactive technologies.

Transactional Distance

Moore's (1990) concept of "transactional distance" encompasses the distance, which, he says, exists in all educational relationships. This distance is determined by the amount of dialogue which occurs between the learner and the instructor, and the amount of structure which exists in the design of the course. Greater transactional distance occurs when an educational program has more structure and less student-teacher dialogue, as might be found in some traditional distance education courses. Education offers a continuum of transactions from less distant, where there is greater interaction and less structure, to more distant where there may be less interaction and more structure. This continuum blurs the distinctions between conventional and distance programs because of the variety of transactions which occur between teachers and learners in both settings. Thus distance is not determined by geography but by the relationship between dialogue and structure.

SOCIAL PRESENCE THEORY

Garrison and Shale (1987) include in their essential criteria for formulation of distance education pedagogy, the elements of non-contiguous communication, two-way interactive communication, and the use of technology to mediate the necessary two-way communication. Their theory reflects the advent of digital communications technologies and the possibilities for asynchronous communications provided by Internet-based software.

Social presence is 'the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people through the medium of communication being used' (Garrison, Anderson, and Archer 2000: 94). Since there is a lack of non- verbal communication, the shift from spoken communication to written communication create challenges in an e-learning context. Garrison and Anderson 2003: 29) advocate the need to provide attention in order to establish and sustain appropriate social presence if the full potential of e learning is to be realized.

As distance education struggles to identify appropriate theoretical frameworks, implementation issues also become important. These issues involve the learner, the instructor and the technology. Because of the very nature of distance education as learner-centered instruction, distance educators must investigate how the learner, the instructor and the technology collaborate to generate knowledge.

ORGANIZATIONAL MODELS

Another person who has made significant contribution to the development of distance education is Otto Peters. Peters (1971) work on a theory of industrialization reflects an attempt to view the field of distance education as an industrialized form of teaching and learning. Peters concentrated on the links between structure and economy. The primary purpose of this industrialized model (Peters, cited in Keegan, 1990) is to instruct as many students as possible regardless of time and location.

Peters used the model to raise questions about effectiveness and efficiencies in distance education organizations.

From its beginnings, distance education has shared aspects of the industrialized production process from the development of print-based instruction to the development of course material in computer-mediated instruction. This concept was drawn from the industrial sector and it was applied to the practical example of the distance education production process through such processes as division of labor and mass production to reduce cost and maintain quality. Through some models of distance education, a course can be offered to a very large number of students from various locations. This implies possibilities for division of labor in the supporting organization between course writers, instructional designers, editors, and administrators, and leads to a varying amount of mass communication and industrialization.

Peters' model came at a time when distance education organizations were moving from being small institutes attached to traditional institutions to being independent organizations. In Britain, the British Open University had started in 1967 and in Canada the 1970s saw the opening of Athabasca University and Télé-Université du Québéc, both independent open universities. Peters challenged them to be organizationally effective and accountable while retaining the pedagogical focus, which had been the focus of distance education writers. Holmberg (1984) strongly urged the undertaking of inductive studies of distance education "organization" to look at administrative frameworks, processes of developing and distributing learning materials, interaction between system members, and other activities required by society and the educational establishment.

More recently, Daniel (1999) in his discussion of mega-universities points out that as traditional universities move into flexible learning, dedicated distance institutions will have to reassess their strengths and be very conversant with their costs, a return to Peters' point on the interrelationship of structure and economics. Daniel proposes that mega-universities must manage two processes. First is the point at which unit costs per student begin to drop, what Wedemeyer referred to as the "critical minimum of aggregation" (p. 61), and second, the "enrollment level beyond which the cost of teaching students at a distance is less than the cost of teaching them in conventional ways" (p. 61). He adds, "Working with a widening range of learning technologies with very different cost structures will be a challenge to all universities offering distance education or technology-based teaching" (p. 64) and the varied costs of different technologies make simple economy of scale economic models no longer accurate. This area is one of increasing interest to distance education administrators.

Peters (1998) has also revisited his theory of industrialization, his newer work purports the evidence of industrialization throughout all modern life including those of the traditional universities. In the post industrialized age of teaching and learning, Peters looks at globalization. Peter recommends the administrators of distance education institutions to visualize a larger framework in the implementation of distance education in order to maintain with the current trends.

Besides he feels the need to employ hard-core highly qualified specialists, who can perform multi-tasks in a department, this would reduce cost as they can be employed on contractual basis. He also revisits his earlier theory of industrialization, where he suggests mass production, now he is of the opinion that goods should no longer be produced en masse, on the contrary they should be produced on demand and just in time. He concludes by asserting that there is a need to balance the teaching learning process, and the institutions that function in the hierarchical form should consider the horizontal form of functioning. Thus more stress on the learner centred approach to distance education.

THE ADMINISTRATION OF DISTANCE EDUCATION INSTITUTIONS

In most distance education institutions the students have no face-to-face contact with their instructors. As a result, those managing distance-learning systems face challenges, which are not found in the traditional classroom-bound systems. The generic skills that they must draw on remain those of any manager: the arena within which they must exercise those skills is very different (Rumble, 1992, p.14).

Management is the process of getting activities done efficiently and effectively making decisions on what to do and how to do it and then checking that it is done. According to Rumble (1992), managers perform a number of management functions. Rumble identifies the four main functions of a manager: planning, organizing, leading and controlling. To be effective, administrative behavior must rest on certain philosophical assumptions about such fundamental considerations as human nature, the nature of reality, conditions of knowledge, and the nature of value. Further, such behavior must be in harmony with great cultural movements and the ideas that impel them--ideas that are inevitably philosophical in character (Graff, Saxe & Ostlyngen, (1966). Today's leaders must develop a holistic perspective that enables them to comprehend the myriad social, economic, cultural and political forces and conditions affecting their institutions.

Rumble (1992) highlights the fact that there is no single way of organizing a distance learning system. The organizational structure appropriate for a small-scale person centered distance learning system will be very different from that for a large institution centered system (p. 54). Paul (1990) examined four organizational models for higher education--the bureaucratic, collegial, political and the anarchic (p. 31). He sees weaknesses in all approaches and notes that the bureaucratic, collegial and political models are limited by their ability to explain only part of an organization's functioning. He sees possibilities in the garbage-can model of organized anarchy (Cohen & March, 1974). In discussing the garbage-can model, Mintzberg (1989) notes that in universities the most important decisions are made by academic collectives but that, with anarchic pressures, they tend to veer between "haphazardness" and the imposition of a type of rationality that speaks of "an invisible hand to keep a lid on the garbage can" (p. 187). In the end, however, Paul stresses values-based leadership as the most essential aspect. Daniel (1999) sees three aspects of distance education organization as crucial: the course production process, the student support system and the management system itself. Bates (2000) integrates both of these perspectives in his reflection that what is most often missing in higher education management is "*strategic* vision, that is how technology can be used to change the way a university or college does its core activities or business so that it can reach out to new needs and new target groups" (p. 58).

Nickerson (1988) states that technology has not yet lived up to its promise because university leaders are not dealing with it in the right way. Specifically they are asking the wrong questions. According to Nickerson, managers spend too much time on making technology work for education, when the first question one should ask is "What could technology do?" rather than "What should be done?" This is a universal concern, for most presidents as distance education is a relatively a new phenomenon and it is quite different when compared to the management of conventional institutions or correspondence institutes.

Mason (1996) discusses the issues surrounding the educational use of combinations of these media on Open University courses. She also examines some of the organizational implications (e.g., financial and administrative) of adopting these technologies. Her points are similar to those of Daniel that the learning effectiveness and costs of these technologies need to be constantly monitored before and after decisions are made. He quotes Sparkes (1984) who showed that "as the media of distance education become more sophisticated, academic productivity, as measured by the ratio of the student-hours of work generated for each hour of academic input, is decreasing steadily"(p. 41). Daniels concluded that this represented a real drop in productivity unless the newer media allow students to learn more efficiently and reach a much larger number of students.

Rumble and Latchem (2004) argue that Daniel's arguments apply only to correspondence-based and multimedia-based approaches. They suggest that

> Such institutions can achieve economies of scale because they replace traditional teaching methods, which are labor intensive (and have low fixed costs based on high up-front investment in materials production but low teaching costs (giving high fixed and low variable cost structure. (p. 120)

In contrast, as interactive technologies are introduced, they argue, these institutions are likely to see their unit costs rise sharply resulting in a reduction in size in order to reduce costs.

Another impact on the management of distance education institutions has been the introduction of quality assessment. Considerable scholarship has been devoted to the question of quality (Rao & Mohanraj, 1995, Panda 1999). Deshpande (1994) pointed out, "when we are talking about quality, we are inevitably talking about excellence" (1995, p. 18). Chandrashekhara Rao (1997) developed a model specifically for distance education. It had three types of indicators, (i.e., micro, macro and mega) and he identified examples for each. Micro indicators related to specific operations such as choice of course offerings, macro indicators were broader compilations such as entry-exit performance comparisons of students, while mega indicators looked at the university's relation to the surrounding society such as its ratio of formal to continuing education offerings or its linkages with business and industry sectors.

In India, the National Assessment and Accreditation Council (NAAC) and the Distance Education Council (DEC) have developed guidelines for the institutional accreditation of open and distance learning systems. According to Stella (2004), the assessment is based on the seven criteria that are also used in traditional education: "(1) Curriculum Aspects; (2) Teaching-Learning and Evaluation; (3) Research, Consultancy and Extension; (4) Infrastructure and Learning Resources; (5) Student Support Services; (6) Organization and Management); and (7) Healthy Practices" (p. 5) but adapted for distance education. However, Stella points out that while the broad framework to assess the quality of educational offerings might be the same for traditional and distance education,

> the subtle difference between the two systems needs to be acknowledged and the most significant factor that differentiates the ODL system is the centrality of the institutional structure. This is mainly because ODL tests conventional assumptions, raising fresh questions as to the essential nature and content of an educational experience and the resources required. (p. 6)

The exploration of distance education management is still relatively new, and only Daniel has specifically addressed the issues faced by mega-universities. His "three-legged stool" outcomes of quality learning materials, student support, and efficient logistics are essential to keep in mind in exploring the organization of a mega-university such as YCMOU and the decisions involved in its implementation of these newer knowledge media.

RESEARCH ON DISTANCE EDUCATION IN INDIA

Research studies on distance education in India have been hard to obtain since most of the journals and books are not available in the West. In addition, much of the work has either focused on descriptive analysis of statistical information on enrollment patterns or on descriptions of particular organizations. Given the size of the organizations, the accuracy of the numerical data is often suspect. However, this situation is changing rapidly and not only is the work becoming available internationally but the research designs are also changing. One of the major promoters of research in distance education has been the staff involved in research and evaluation at Indira Gandhi National Open University and many of the studies reported in this section come from IGNOU.

Singh (1996) provided an overview of distance education in India based on comparative data from some of the major distance education providers. He compares the functioning and effectiveness of these institutions with regard to institutional and student profiles, staff development, course materials; student support services; and finance and economic viability. He makes a number of recommendations for the improvement of dual mode correspondence education and single mode open university systems and their activities in the country. In particular, he suggests upgrading the correspondence course institutes into multimedia distance teaching institutes, the improvement of print materials; the introduction of multimedia, better and more student support services, efficient printing and distribution systems, and networking of the correspondence institutes and the open universities.

Mandke (1996) agrees with Singh that multimedia approaches are essential for effective learning. According to him, the distance mode of education has achieved considerable success in the teaching of humanities courses, and already employs multiple media. The teaching of science subjects has more dimensions and demands and requires laboratory work; technology subjects require a similar variety of media. Mandke discusses the principal features of several multimedia pedagogical models from around the world and compares them to the structure and programs of IGNOU.

He concludes that multimedia supports would provide valuable learning opportunities to working professionals.

More recently Chaudhary and Bansal (2000) described the introduction of program counseling on interactive radio at IGNOU. "The study reveals the need for setting an environment for effective learning through the audio medium, adequate advance publicity, and providing learners control of their learning" (p. 37). The authors provide a range of recommendations for enhancing interactivity among learners taking into account the particular cultural barriers present for women for example and stress the importance of evaluating the effectiveness of any new media. Another use of technology was explored by Killedar (2001). He describes some vital design issues pertaining to an "Online Self-Test" at YCMOU. He includes experiences gained during the implementation of the Online Self-Test Centre and suggests that the Internet, despite its present technological limitations and costs, can be effectively used to improve the self-study of distance learners.

Aslam (2001) is concerned with the juxtaposition of growth and quality in distance education. He sees India's open universities as more administrative than academically oriented. He highlights the growth and importance of IGNOU and YCMOU to make his points but cautions that although they must continue to reach out to distance learners, maintaining quality in distance learning is equally important. Madan (1996) has a similar position on quality in distance education. His focus is quality assessment. He promotes the use of program evaluation for quality assessment with the aim of making the learners more active and responsive to what they learn and how they learn. Determination of a sound foundation, adoption of a rational approach, and establishment of a feasible framework for program evaluation for quality assessment in distance learning are the major themes of this paper. Haricharan (1993) was also concerned with quality, this time in student services. He compared the structure and administration of the study centres at two open universities. He discussed the physical facilities, strengths and constraints with regard to services, functional and structural aspects and usefulness to the distance learners. His findings indicate the need for more study centres with more information technology and library facilities for isolated distance learners. Garje and Rastogi (1995) describe the operation of study centres at YCMOU and similarly recommend that all personnel receive training in developing skills and knowledge in the people the centres serve.

Mani (1988) and Kanwar and Jagannathan (1995) have attempted to put together writings on various aspects of gender and distance education in India. Most articles are descriptive or expository but they also provide some information confirming the disparities between women and men in distance learning and describe some projects that have been very beneficial for the participants.

Sharma (1996) studied the alternative perspectives in education and training that constitute a major item in the agenda set out for the distance education system. She chose as her focus the need for more inclusive "women friendly" (Panda, 1995) approaches. This paper examines one course at IGNOU and in particular the course structure, design content and language in terms of gender neutral, women friendly approaches in education. Sharma argues for empowerment (and not concessions) for women through the effective use of the distance education system. The issue of gender in distance education, as in other sectors of education, has met with varying responses from educational planners and administrators, ranging from support and understanding to condescension and hostility. For example, Srivastava and Reddy (1996) concluded that most women "think within their parameters of their traditional social conditioning" (p. 45) and this is reflected in their choices of courses of study. This provides no recommendations for distance education to help women explore course work beyond the confines of society's expectations.

RESEARCH ON ONLINE LEARNING

Within the last five years, online courses focused in Business Administration, Computer Science and Engineering have been introduced in India.These programs are offered by private operators, the training divisions of large international computer corporations, and increasingly by traditional universities who have been unable to keep up with the demand in these areas. The first mega-university to launch an online course was IGNOU.

Reddy and Srivastava (2001) in describing shifts and trends in IGNOU's support services, focused on the virtual campus concept. In the first phase, three programs were offered for the first time in July 1998, all in computing or computer applications. Students obtained their materials through the IGNOU website and through practicals (laboratory- based experiments) at 250 designated Internet Access points throughout the country. Due to a lack of sufficient access points to the Internet and Personal Computers in the interior, the university was unable to cope with the huge enrollments and need for web-based student support. In 1999 the university gave students the option of moving to the regular stream. About 2750 masters and 1000 baccalaureate students are still on the Internet as of December 2000 "despite various issues these students encountered" (p. 217).

In the second phase, IGNOU introduced Information Technology programs. The teaching methods included live satellite teleconferencing, recorded tele-lectures, lab work at a tele-learning study centre, web-based and CD-ROM course materials and assignments and Internet chat discussions. In 2001 the Information Technology students (approximately 1000) were surveyed through the tele-learning centres. Based on a response rate of 35%, the authors concluded that three quarters of the students liked the flexibility and independence but one quarter lacked sufficient information and found videoconferencing boring, time consuming, and overwhelming in terms of information. Most students used a business centre or cyber café and so had to download their study materials. They were unhappy at this transference of cost but had no alternative. While they generally found the web-based course materials, e-mail, Internet resources and tele-conferencing helpful, they were less satisfied with feedback on assignments, chat sessions, library services, guidance and support from the telecentres.

Sharma (2001) also discussed the various issues and concerns experienced in the launching of online delivery at IGNOU. First, the distinguishing features are explained in terms of significance, establishment, instructional system, academic programs and modes of program delivery. Sharma delineates various pressures that led to the introduction of online courses. He also highlights the need and importance of online education, the introduction of the MBA program, and the consequences.

This case study concludes with a discussion of the implications of such initiatives for IGNOU, and for the distance education system in the country as a whole.

More recently, Kamjilal, Ghosh and Kumar (2004) described a pilot program testing the development of a prototype for web-based learning for Library and Information Science professionals. The program had eleven modules each involving reading materials, slide shows, streaming videos, e-tutorials and quizzes. Some also had the facility for hand-on practice through simulations. The main feature of the program was that individual students's contribution could be traced and their progress and learning curve was automatically generated. Four interactive chat sessions involved international experts. The program was successful and the model is now being used for other ICT related programs.

These studies have begun research in an area that is of increasing importance to India's mega- universities. The universities not only have to meet the needs of the Indian population but they also have to assess their competition in particular for what may be their most lucrative programs--business administration and computer engineering. Khan (2001), recently Vice-Chancellor of IGNOU, noted:

> Technology is crucial to India as an emerging knowledge-based society, for expanding the reach of extension activities, fostering networks of scholars and raising standards of provision . . . It is imperative to expand our use of ICT. Strategic alliances with technology providers have given our student's access to the Internet, especially for computer courses. We've constituted another taskforce to explore ICT applications in human resource development, promote an ICT culture, new academic initiatives and educational networking, and to review our infrastructure and investment requirements. Our primary concern is to make our systems more learner-centred. (pp. 150-151)

The state open universities share IGNOU programs and they too, depending on their resources, are seeking to include online learning as one of their options, hence the importance of exploring the introduction of online learning at YCMOU, and proposing recommendations that may benefit not only open universities but also distance education learners.

SUMMARY

While distance education in some form has been available for over a century, its development as an alternative to traditional schooling has occurred within the last 50 years. It is a form of education where the provision of the learning materials and the advice and direction about how to proceed are given to the learner who is then more independent and in control of the learning process. The earliest theoretical developments in distance education were about its pedagogical aspects—learner autonomy and independence and instructor guidance. With the development of the Open University in Britain, followed by the opening of other distance education institutions in countries anxious to rapidly expand educational opportunities for their citizens, the emphasis shifted to issues of student support, instructional design and management. More recently, the development of online technologies has renewed interest in conferencing and community as aspects of online pedagogy.

In India, research in distance education has tended to follow the institutional models of the traditional institutions. Most of the work focused on descriptive statistics and was done by employees of the institutions. More recently, and in tandem with the growth of the national and state open universities, there has been considerable developments in research and scholarship. The issues evident in published work are similar to those at distance education worldwide and include concerns about quality, student support, access, multimedia challenges and in particular the introduction of online learning.

This literature review reveals that there is an extensive literature study related to distance education in general and a number of studies conducted are based on faculty issues and learner support system. There are few Indian literature related to administration, most of them do not link with the theories developed by (Peters, Holmberg, Wedemeyer, Keegan, Moore and Garrison and Shale) A look at the literature review shows the issues and concerns raised by experts in the distance education area.

The theories that contribute mostly to this study pertain to the industrialized model of Peters. The large open distance learning universities are designed around structure and economics to obtain economies of scale and therefore are likely to have many of the features identified by peters, division of labour, specialized skills, recruit specialists on contractual basis and produce goods on demand, just in time.

Rumble (1992) expresses his view stating 'administrative behaviour must rest on certain assumptions about such fundamental considerations as human nature, nature of reality, conditions of knowledge and nature of value. On the other Daniel (1999) sees three aspects of distance education organizations crucial, a) course production process, b) learner support system and c) management system.

The pedagogical theories, from Holmberg to Garrison are important in identifying the importance of pedagogical relationship and how they can change with the use of computer mediated courses. There is some limited writing to suggest that use of online classes in mega universities would be a return to the model of traditional universities and therefore be too labour intensive and uneconomic. However, it will be important to know how faculty and administrators at YCMOU are viewing this possibility.

Looking at the contribution from Indian authors, Singh (1996) compares the functioning and effectiveness of distance education institutions. Mandke (1996) talks about the need for multi-media approach to enhance effective learning. Killedar (2001) describes some vital issues pertaining to the designs in online self test at YCMOU. Madan (1996) focuses on quality assessment. Haricharan (1993) was concerned with quality in student services. Mani, Kanwar and Jagannathan (2000), have raised the gender issues.

There are few studies conducted on online learning in India where, Reddy and Srivastava (2001) focused on virtual campus concept. Sharma (2001) discusses various issues and concerns in the launching of online delivery programs. More recent ones like Kamjilal, Ghosh and Kumar (2004) describe the development of web based learning for library and information science professional.

This confirms the need to study administrative issues in a mega open –university.

Chapter 3

RESEARCH DESIGN AND METHODOLOGY

This chapter provides the theoretical orientation that served as the basis for the research methodology adopted for this study. I have provided information pertaining to my background and my orientation to the research. I have identified the research issues that guided the study and discussed the philosophical basis for choosing a case study design. The chapter also contains a description of the research design, data collection and data analysis procedures, and measures I undertook to ensure the credibility and validity of the findings, the means and ways for maintaining trust, and the ethical considerations for this study.

MY ORIENTATION TO RESEARCH AND CASE STUDY

Stake (1998) states that as researchers we enter the case study scene with a sincere interest in learning how people function in ordinary pursuits and milleus and with a willingness to put aside many presumptions while we learn (p. 1).

I came to this topic with a strong interest but a lack of experience in a distance education institution, and as an experienced quantitative researcher new to qualitative studies.

Having experience at the traditional university, I could not relate to distance education mode of learning. However, I had heard about the lack of efficiency in the functioning of some of these institutes with regard to academic counseling, quality of instructions and course material. I had the opportunity with few students who opted out of the course. I was always interested in higher education, both my masters (Med and M.Phil (education) research studies were based on student learning styles and teacher behaviour, coming from a research background and looking at the growth of distance education institutions in India despite its drawbacks made me look at the possibility of conducting study in the area of distance education.

Given my inexperience, and the lack of information available on the topic from Indian institutions, I chose to study YCMOU. It was well established; it was in my home state and I could speak the language, and I saw distance education as a area of expansion in higher education.

The advantage was that I was genuinely interested in descriptions of YCMOU management and open to their explanations. The disadvantage was that I was not familiar with processes and initially may have missed cues. However, I believe this was resolved because of the length of time I spent at the campus and centres.

I am a counselor by profession and so im particularly interested in the feelings and attitudes of the participants. This is what drew me to qualitative research.

RESEARCH DESIGN

Merriam (1998) compared a research design to an architectural blueprint and defined it as "a plan for assembling, organizing and integrating information; it results in a specific end product" (p. 6). He goes on to note that the "selection of a particular design is determined by how the problem is shaped; by the questions it raises, and by the end product desired" (p.6). Merriam observed that in research design a distinction is often made between experimental and non-experimental research. The main objective of experimental research is to investigate a cause and effect relationship. In this type of research, the researcher can manipulate the variables of interest and has therefore great control over the research situation. Non-experimental research, which is often called descriptive research, "is undertaken when description and explanation (rather than prediction based on cause and effect) are sought. The aim of the descriptive research is to examine events and phenomena" (p. 7). Case studies are considered as a descriptive, non-experimental form of research.

The qualitative case study researcher tries to "promote understanding and understanding is sometimes expressed in terms of explanation" but the search is for understanding (Stake, 1995, p. 38). Researchers seek:

> key episodes or testimonies; represent happenings with their own direct interpretation and stories (i.e., narratives). Qualitative research uses these narratives to optimize the opportunities of the reader to gain an experiential understanding of the case (p. 40).

Given the exploratory nature and the dimensions of this research, a qualitative case study has been adopted for this inquiry.

The study was conducted from the perspective of what Stake (1995) called qualitative research where researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meaning people bring to them (pp. 3-4). As Stake (1995) describes it, "we enter the scene with a sincere interest in learning how they function in their ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn" (p. 1). He has developed his orientation to case study research based on "naturalistic, holistic, ethnographic, phenomenological, and biographic research methods" (p. xi). I have followed his orientation in my work.

Van Manen (1990) described methodology as:

> the philosophic framework, the fundamental assumptions and the characteristics of the human science perspective. It includes the general orientation to life, the view of knowledge, and the sense of what it means to be human which is often associated with or implied by a certain research approach. (p. 27).

In discussing the nature of qualitative research, Stake emphasizes the importance of interpretation as method. He explains how interpretation works:

> We try hard to understand how the actors, the people being studied, see things. Ultimately the interpretations of the researcher are likely to be emphasized more than the interpretations of those people studied, but the qualitative case researcher tries to preserve the *multiple realities*, the different and even contradictory views of what is happening. (p. 12)

For Stake, the qualitative researcher keeps in mind the situation and her own consciousness, pays attention to participant's intentions and "sense of self ", provides thick description of the case, but "ultimately comes to offer a personal view" (p. 42).

My purpose in this study was to investigate YCMOU administrators' thoughts and actions and to gain insights and a better understanding of their experiences in implementing online distance education programs through various regional and study centres. Since it will focus on the issues faced by the administrators and their responses to these issues, the study is an instrumental case study.

THE NATURE OF INTERPRETIVE RESEARCH

A number of writers have discussed the different approaches to discovering truth and doing research. Lincoln and Guba (1985) have identified the characteristics that make humans the "instrument of choice" for naturalistic inquiry. Humans are responsive to environmental cues, and able to interact with the situation; they have the ability to collect information at multiple levels simultaneously; they are able to perceive situations holistically; they are able to process data as soon as they become available; they can provide immediate feedback and request verification of data; and they can explore atypical or unexpected responses (p. 220).

The naturalistic paradigm is based on inductive thinking and phenomenological ways of knowing and understanding. The assumptions underlying the five basic axioms and the methodological implications describe a naturalistic view that has its basis in existentialism and idealism.

The subject of the first axiom is ontology or the nature of reality. The naturalistic inquirer holds the view that there are multiple realities about the world and "the real world we encounter 'out there' is such a dynamic system that all of the parts are so interrelated that one part inevitably influences the other parts" (Owens, 1982, p. 6). Since this study emphasizes the subjective experiences of the administrators in a distance education program in India, I hope that in conducting a holistic study, I have achieved some level of understanding of their experiences in their own settings, to gain insights into their individual realities and real life experiences.

The second axiom refers to the relationship of the researcher to the participants. (Denzin & Lincoln, 2000, p. 5). From a naturalistic researcher's perspective, the inquirer and the participant are seen as inseparable throughout the inquiry process. I strongly believe that a dynamic relationship is essential and this interaction enhanced not only my understanding as a researcher, but also that of the participants. Stake counsels that case studies should be both non-invasive and empathetic; in other words that I did what I could to avoid disrupting the daily lives of participants and I focused on their understandings and stories, rather than seeking justification for my point of view.

The third axiom focuses on the nature of truth. There is no single truth; there are multiple realities and multiple truths. Whatever an individual perceives to be true at that time and in that context is considered true. As a naturalistic inquirer, I attempted to capture the construction of multiple realities and multiple truths throughout the study.

The fourth axiom, attribution or explanation of action is not seen as a linear causal-effect relationship. I strived to obtain a holistic view of the issues raised in each situation that I studied. "Pursuit of complex meaning cannot be just designed in or caught retrospectively" notes Denzin and Lincoln (1994, p.43). "It requires constant attention" (Stake, 1995, p. 43).

The fifth axiom is axiology, the role of values in inquiry. The values that I held influenced my inquiry and I recognize that this was also true for my participants. I developed a strong interest in distance education programs in general and online education specifically; hence my desire to undertake study in this area. However, it was also important to be reflexive throughout the research process, to examine one's own biases and to critique one's own responses.

Guba and Lincoln (1982), Lincoln and Guba (1985), Gleshne and Peshkin (1992), and Streubert and Carpenter (1995) all stressed the need for an emergent design in naturalistic inquiry. Owens (1982) described the plan for a naturalistic study:

> Starting with questions of broad scope and proceeding through a conceptual funnel--working with data all the while, ever trying to be more fully understand what the data mean--making decisions as to how to check and how to verify as the investigation unfolds. It is important in the design of such a study that the investigator is fully prepared to look for unanticipated perceptions arising from the data as he or she gets closer and closer to the data over time. (pp. 11-12)

The fact that I chose a naturalistic, interpretive approach reflects my values and desire to gain understanding from the study. As I was aware from the beginning the design of the study, the participants I selected, the methods I used for data collection, and the conditions under which I collected data, were all influenced by my values. The design or the "blueprint" for this study emerged as the study progressed from the data collection to analysis processes.

THE CASE STUDY

In qualitative inquiry, narrative methods are preferred. Creswell (1998) stated that qualitative inquiry is for those researchers who are willing to commit extensive time in the field and that the data collection and analyses are a complex time consuming effort where the researcher narrows the data and develops fewer themes and categories. Denzin and Lincoln (1994) see qualitative research as multi-method in focus involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meaning people bring to them. Qualitative research involves the studied use and collection of a variety of empirical approaches--case study, personal experience, introspective, life story, interview, observations, interaction, and historical, interaction and visual texts--that describe routine and problematic moments and meanings in individual lives. Qualitative researchers deploy a wide range of interconnected interpretive practices, hoping always to get a better understanding of the subject matter at hand (pp. 3-4). In this study I chose a case study approach because it allowed me to focus on the issues, shape the study as data unfolded, and obtain rich descriptions and inform my own experiential understanding of the concerns and actions of these administrators.

Yin (1994) defines case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when boundaries between phenomenon and context are not clearly evident" (p. 13) According to Bogdan and Bilken (1982), a case study "is a detailed examination of one setting or one single subject or one single depository of documents or one particular event" (p. 58). Dyer (1979, p.188) noted that case studies are distinguished by their intensive detailed investigation of a single unit: an individual, a classroom, a school system, a society, or a community. Merriam (1998) has defined a case study "as an examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group" (p. 9) and further emphasized that the case study approach "aims to uncover the interaction of significant factors characteristic of the phenomenon. The case study seeks holistic description and explanation" (p.10)

Merriam (1998) further outlined the following four essential characteristics of a qualitative case study: Particularistic, descriptive, heuristic and inductive.

1.Particularistic: in focusing on a particular situation, event, program or phenomenon. Further Merriam states "the case itself is important for what it reveals about the phenomenon and for what it might represent. The specificity of focus makes it an essentially good design for practical problems--for questions, situations or puzzling occurrences arising from everyday practice" (p. 11)

2. Descriptive: a qualitative case study is descriptive because its end product "is a rich, "thick" description of the phenomenon under study" (p.11).

3. Heuristic: cases "illuminate the reader's understanding of the phenomenon under study--bring about the discovery of new meaning, extend the reader's experience or confirm what is known" (p. 13)

4. Inductive: inductive reasoning from the derived data should lead to generalizations, concepts or hypotheses emphasizing, "discovery of new

> relationships, concepts and understanding rather than verification or predetermined hypotheses, characterizes qualitative research" (p. 13)

Rist (1982) noted that one of the functions or advantages of case studies is that they allow for identification of other problems and variables that may not have been anticipated at the beginning of the study, and that they also provide a context for statistical data that may be part of the social problem; they establish a context for a more in-depth analysis of behavior or other phenomena related to the research undertaken. In this study, the case study approach provided an in-depth investigation of the issues and concerns of an open university and its regional and local study centres. The issues relate to administrative actions and decision-making concerning online course development, design and delivery; student support services and the relationship among them. The ultimate aim in this study was to provide a holistic integrated description and understanding of these issues and the administrators' actions.

RESEARCH QUESTIONS

As a qualitative case study researcher, I was the prime data collector and therefore spent extensive time doing fieldwork. Stake (1995) warns that "one needs to think through in advance some of what may come to pass. . . . perhaps the most difficult task of the researcher is to design good questions, research questions, that will direct the looking and thinking enough and not too much" (p. 15). Mine is an instrumental case study because it was driven by the issue rather than the case itself. I believe that while knowing how YCMOU operates is interesting and useful to our understanding of distance education, it is how they coped with the implementation of online learning that is the most useful question. Stake (1995) says that

> issues draw us towards observing, even teasing out, the problems of the case, the conflictual outpourings, and the complex backgrounds of human concern. Issues help us expand upon the moment, help us see the instance in a more historical light; help us recognize the pervasive problems in human

interaction. Issue questions or issue statements provide a powerful conceptual structure for organizing the case. (p. 17)

The guiding question for my study was:

What were the major administrative issues encountered and how were they being addressed in order to successfully implement online learning at YCMOU?

DATA COLLECTION STRATEGIES

Data for this study were gathered through observation, discussion and reflection during extensive field work over a period of three years, 2001-2004.

FIELDWORK PREPARATION

I returned to India in November 2001 and immediately began making arrangements to visit Nashik and speak with the Vice-Chancellor to seek permission to conduct the study at YCMOU. In (December, 2001) I had several meetings with the Vice-Chancellor to discuss the study and my interest in distance education, the case study method, potential interviewees and the use of qualitative data. I briefed him about my study and sought his permission to use YCMOU as the case study site. The Vice-Chancellor was not familiar with qualitative research methods and so we spent some time discussing them. He was pleased that I wanted to do the study at YCMOU but he was concerned that I planned to focus on online education. He did not feel that the organization had gone far enough in this area for a study to be fruitful and thought that developments were still in the very early stages. He encouraged me to broaden the study and not focus on a single medium.

I was appreciative of his approval for the study and began spending time at YCMOU to learn how it operated as a context for development of more focused research questions. During that time I had an opportunity to read documents about the university available in the university library and speak informally to people on campus. People spoke about the university and their work and gradually I got a better understanding of what it was like to work in an open university. I visited the various departments and learned more about the role and function of the regional centres. I found that these informal conversations helped me obtain a clearer picture of the university and those whom I would like to contact.

I also looked at Sharma's (2001) study of online development at IGNOU and thought about the topics discussed, the questions raised to provide the information, and where the silences were. I initially defined the boundary of my case as being the decision-making and subsequent actions related to the implementation of two online programs. YCMOU has eight schools and divisions, and beginning in 1999, two schools had launched professional programs through online education in partnership with other conventional institutions. As my preliminary discussions with the Vice-Chancellor revealed, one of the schools was really in the early stages of full-scale implementation. However over the course of the study other areas also became involved. I felt that identifying the implementation issues would be beneficial in learning about online development and so I retained my original focus.

UNDERTAKING FIELDWORK

In late January 2002, I received ethics clearance from the University of Alberta to undertake the study and having met people informally, I began to make appointments for interviews. My formal interviews began on February 11, 2002. Because of its location on the Indian plateau some three hours' drive inland from Mumbai where I lived; I had to make the most of each visit.

Participants

On the recommendation of the Vice-Chancellor, I began by interviewing the Heads of Schools. Their own schedules were such that they preferred that I interview them at the end of the week on a Friday or Saturday. The university closed on the first and third Saturdays and some interviewees made themselves available to be interviewed on these Saturdays. This helped my travel schedule. Everyone was most cooperative and helpful. Usually, I spent two to three days at the university at a time. I did two to three interviews and set up others for the following visit. It did not make sense to spend continuing time at the site when I was unable to interview respondents because of their busy schedules as they were away from campus on field visits or at meetings. While this lengthened the process, it also gave me more opportunities for informal observation and conversation. Once I fixed an appointment, we discussed the place for the interview. Because they were senior administrators, most of the interviews were held in their own offices. Most interviews were without interruption. I was very fortunate that everyone I asked agreed to be interviewed.

I had just completed this first round of interviews with the senior administrators when I learned that the Vice- Chancellor's term had come to an end and in February 2002, a new Vice-Chancellor was appointed. This meant that my interview process slowed for several months. First, I wanted to meet with the newly appointed Vice -Chancellor to receive his approval for the study. This occurred in March 2002. He was very interested in the study and gave me permission to proceed. He was very helpful in giving me access to documents and answering questions. He also gave me permission to visit the regional centres and talk to staff and students. March is the end of term examination period and the time of preparations for a new term. School Heads were very busy at this time with convocation and admissions and with additional meetings associated with the appointment of the Vice- Chancellor and so I used the remainder of the school year to speak to their senior staff and to other members of the university community. Often in interviews, Heads would answer some questions but direct me to senior staff members who were better able to give fuller answers to other questions. I used this time to follow up with these interviewees. Others would suggest that I refer to the institution's annual report or to articles they had published. As well, students often came to use the library and I talked with them about their programs and the experience of distance study. June and July are official holiday months and June to September are the months of the monsoon rains. In addition there are a number of state and religious holidays during this period when the university is closed. The rains make it difficult to travel and so I was able to do some interviews in April and May and then resumed them in October and November.

In Fall 2002, I began follow up interviews with Heads and senior staff. Interviewees were more relaxed and most were more willing to discuss their concerns. We were both more comfortable with the process but they remained adamant about not being tape-recorded. They wrote letters to regional and study centres to assist me in making arrangements for visiting. In Spring 2003, I visited four of the eight regional centres and all of their associated study centres. In each centre, I interviewed staff from those areas involved in online learning as well as the Head, Assistant Heads and some academic counsellors. I also had an opportunity to interview all the former Vice- Chancellors since the inauguration of the university. As expected, my data collection was iterative, moving from informal discussions and document analysis to semi-structured interviews and surveys with staff and returning to observation and follow-up interviews in order to verify, support and challenge opinions and information obtained elsewhere. What I thought were my final interviews were in November 2003. I then returned to Canada to focus on data analysis but in June 2004 I had an opportunity to visit the campus and meet the Vice-Chancellor and some Heads of Schools. In reporting public information about YCMOU, I have tried to include the most recent data available.

Interviews

Qualitative interviewing encompasses a variety of ways of questioning. The family of qualitative interviews differ in the degree of emphasis on culture, in the choice of the arena or boundaries of the study, and in the specific forms of information that are sought. How we interview depends, in part, on what it is we are trying to hear (Rubin & Rubin, 1995, p. 19). Interview guides ensure good use of limited interview time; they make interviewing multiple subjects more systematic and comprehensive; and they help to keep interactions focused (Patton, 1990, p.180). Most of the senior administrators and heads were comfortable using English but some informal conversations and even interviews were in Marathi. I am comfortable in both languages and believe that the opportunity for the participant to speak in the most comfortable language can help establish trust.

These semi-structured interviews were about an hour in length, and were based on a set of questions that I had prepared and given to them prior to the interview (Appendix 1). However, like the Vice-Chancellor, these administrators were not used to qualitative research and were unwilling to be audiotaped. Although I discussed confidentiality with each of them, explaining that by talking to everyone it decreased the likelihood of anyone being identified and further that no one but my supervisor would see the transcripts, they remained unconvinced. One senior official advised me that since it was a university with prominent academics as Heads of Schools I would need to be very careful not to mention "our names vis-à-vis the school" as it would be easy for others to guess who said it. I reassured him that I would not do so and reiterated the ethics requirements. In the end, I wrote furiously during the interviews and immediately afterwards I went to the library and transcribed my interview notes. I reviewed the transcripts again at home and followed up uncertainties through telephone calls and e-mail and subsequent confirmatory conversations. Everyone gave me their home phone numbers and I was told that I could contact them at any time if I needed further information, although I did not do so.

I also interviewed staff at the regional centres and study centres. Some interviews were in Marathi and I had to translate them into English. Sometimes to reassure myself that I was being true to the meaning of the interviewees I checked individual terms with fluent Marathi/English speakers to ensure that I had used the most appropriate translation for a word. In all, I interviewed 36 individuals in the regional and study centres.

Observations

With observations, it is easy to become overwhelmed with data and so it is important to know the focus of observations before beginning. Because of the circumstances, I had many opportunities to observe the workings of YCMOU. Often I sat in the library at YCMOU and at the regional and study centres and observe students interacting with staff and each other. I tried to keep focused on online learning and the administrative issues of distance education as much as possible. These observations helped me better understand the pace of the organization and the rhythm of the work. Any mistakes I had made when just observing were evident when I began to talk to staff and students.

Documents

I gathered data about YCMOU and its specific programs from various documents. Owens (1982) recommended that using "multi-data gathering techniques ensure the potential for cross-checking and verifying data" (p. 15). Before my first meeting, I had already started gathering documents from various sources-- brochures, web sites, university calendars and contacts with different heads through e-mail. I gathered more information from publicity and marketing documents, from minutes of meetings and from online courses. Some of the people I interviewed recommended documents for me to read and I followed up all of these. Most valuable were the Annual Reports, which were really on-going strategic planning vehicles, documenting what had occurred in the previous years and what the plans were for the next cycle. Reading these gave me a better sense of the history of the institution.

Surveys

Stake points out the value of coded data in helping keep track of information and study directions. I had read the size of YCMOU (173 administrators, 60 academics, 517 media personnel, 263 staff, and 4521 academic counsellors) from the web site and expected to have to survey the administrators of the regional and local study centres involved in offering this program. In the end, I found that there were about 10 senior administrators, some of whom held multiple appointments such as Head of a School and Director of a Division. There were about 40 academic faculty employed in the various schools and about 20 who worked in the divisions or headed the regional centres. The academic counsellors were employed through the study centres. I was able to visit a number of the regional and study centres and talk with these staff, briefing them about the study, seeking preliminary information and inviting their participation. In this way I explained the study and then asked them to fill in the survey during my visit. Some did so directly and then I proceeded to interview them. However others used the survey as a guide and told me their responses for me to write them down. I also had an opportunity to talk with students at the various centres and at the university. I handed out the surveys to get their perceptions of their distance education experience. In all, I obtained surveys from 43 students. I also interviewed students.

Timeline

Initially I intended to do my major fieldwork from January to May 2002, but it soon became apparent that this was too short a period to really learn about YCMOU and the issues associated with online education and distance education management in particular. The change in Vice-Chancellor was an initial setback and I was unprepared for the invisibility of the faculty. Most Schools employed only three to five faculty and it was difficult to organize times to talk with them at length. They were often traveling to regional or study centres to talk to academic counsellors and give workshops, or to meet with their course writing teams. Similarly, visiting regional and study centres needed to occur on weekends so that it was impossible to visit more than one in a day. Therefore, I extended my fieldwork and continued to visit YCMOU and regional sites throughout 2002 and 2003. I had the opportunity to make a final visit in June 2004.

DATA ANALYSIS

Data analysis was ongoing with data collection as I visited YCMOU and the centres, observed what was going on, and had interviews and conversations with personnel. I studied the documentary materials and sought to learn how YCMOU operated and how decisions were made. This meant that I did a series of interviews with informants over time, checking my perceptions and factual data and seeking clarification and further information. I regularly reviewed my interview notes, program documents and field notes and insights gained during the site visits. Stake (1995) points out that while "the search from meaning is a search for patterns," it is also important to recognize "the significant meaning in a single instance." (p. 78). He suggests that the researcher use a combination of analysis and synthesis of the single instance and detailed coding and analysis to build both categorical aggregation and direct interpretations of the data. Further he notes, "Almost certainly there will be many more data collected than can be analyzed. After getting lots of good observations it is important to identify the best and set the rest aside" (p. 84). Many of these good observations will be narratives which Stake has termed "illuminations" or "testimonials." In the case of YCMOU, because it was a relatively new institution without the regular timetable of classes, with students at a distance and few faculties some of whom were usually off-site; much more of the ongoing operation was invisible.

In the end I organized my original data into three areas: 1, the vision, strategic planning and administrative practices of the Vice-Chancellors and their use of the five-year plans; 2. administrative decision-making, planning, organizing and monitoring from the perspective of the senior Heads of Schools; and 3. administrative decision-making activities and evaluative information concerning course development and implementation, including at the regional and local study centres. Once I had completed the descriptions of these areas, I began again with my original notes and identified topics of interest for each of my administrative participants. These overlapped and eventually were grouped under four themes that were essential for online development at YCMOU. I discussed these with staff at YCMOU prior to writing up the data and they confirmed the importance of these issues. Stake (1995) advises that qualitative researchers should provide their assertions, the researcher's principled conclusions based on the study findings and sufficient description for readers to make naturalistic generalizations, what Guba and Lincoln (1982) referred to as transferability. I hope that my description of YCMOU will be sufficient for other open universities to be able to transfer what is appropriate to their own institutions.

TRUSTWORTHINESS

Besides developing rapport with the participants, the other important need was to develop a mutual trust. I did this by keeping the participants informed, sharing the interpretive process and requesting their suggestions and reactions throughout the study. I believe I have been consistent in presenting their views about their programs in the study.

According to Guba and Lincoln (1982) validity or "trustworthiness" of qualitative research is concerned with truth, value, applicability, consistency and neutrality. Besides, a number of other techniques will be used to develop trustworthiness and integrity of my interpretations. Owens (1982) suggested spending long enough periods of time at the selected sites to "learn the language" and to become accepted and trusted (p. 14).

As a researcher, I realised that I played a crucial role in developing and maintaining the trust of the participants at the Headquarters, regional and study centres. I brought a particular status as a researcher and as a resident of Maharashtra. I spoke the language fluently but I was also a woman and an outsider doing an advanced degree at a Commonwealth university. I have experienced online learning, but I have not been an administrator in a distance education institution. This increased both my awareness, for more was new, and my misunderstanding, since I initially may have missed messages recognizable to those who have been in that role. However, time was on my side. Glesne and Peshkin (1992) identified time as a critical factor in achieving trustworthiness: "Time at your research site, time spent interviewing, time to build sound relationships with respondents--all contribute to trustworthy data" (p.16). This was certainly true in my case. Everyone was pleased to participate in the study and respected that I was doing my doctorate. However, they came from many different fields and were not familiar with qualitative work. They were familiar with descriptive studies; hence their admonition to look at the annual reports, so it took the three years to get to them to recognize that the research involved their issues and concerns.

Lincoln and Guba (1985, pp. 289-331) recommended that in order to ensure the trustworthiness of the data collected, the researcher should ensure that the findings are credible, dependable, confirmable and transferable.

Credibility is the extent to which the findings and interpretations are seen as credible by the participants (p. 296). Lincoln (1985) recommended that care must be taken in gathering and recording data, and that continual scrutiny is necessary to eliminate distortions and enable the researcher to produce a truthful and credible report. This is important in view of the fact that in qualitative research, the major concern is whether the researcher's analyses and interpretations reflect the views and perceptions of the respondents. In my case, I followed up interviews with subsequent conversations, checking statements if I was uncertain that I had written it correctly and over time bringing up the topic again. In addition, I had the opportunity to interview multiple people involved in many different aspects of the organization. That gave me many opportunities for triangulation of factual information. Finally, when I had completed the analysis of the four major issues, I contacted the senior administrators and asked for their reactions. They agreed that these were important.

Dependability refers to the verification for consistency of findings of one researcher by another. Member checks and peer reviews are two strategies which help establish this criterion. This was more difficulty in this case since I did not have audiotapes. When I wrote down the words of a participant, I asked that person to ensure that my understanding was accurate. I check uncertainties in Marathi with fluent Marathi/English speakers and while I was in India I sent my interview notes to my supervisor for feedback. She asked questions of clarification which led me back to my participants for follow-up conversations that strengthened the dependability of the data.

Confirmability refers to the extent to which the data used in the study can be confirmed from other sources (Lincoln & Guba, 1985, p. 300). Stake (1995) refers to this as triangulation and recommends that it be used for "important data and claims" (p. 112). It is essential when the researcher wants "to gain needed confirmation, to increase credence in the interpretation, to demonstrate commonality of an assertion" (p. 112). It can be done through data source triangulation (same meaning different, circumstances), investigator triangulation (peer review), theory triangulation (comparing interpretation of the same event from people with different orientations), and methodological triangulation (comparative methods such as observation and previously taken photographs, or different eye-witness accounts).

At first, I was frustrated that no one was willing to be audio-taped and that they often referred to other sources for answers. However, I eventually realized that this gave me a basis for further questions. For example, I was able to use the five-year plans to ask questions about why the decision had been taken or how successful they had been. Specific information about enrollments or course development, deflected to a staff member, gave me opportunities for further queries in other areas.

In these ways, I sought to ensure trustworthiness and credibility throughout the study, both during data collection and through data analysis.

ETHICAL CONSIDERATIONS

This study was conducted in accordance with the University of Alberta research ethics guidelines for the protection of human research participants. I obtained approval to conduct the research from the Research Ethics Board of the Faculties of Education and Extension and from successive Vice-Chancellors at YCMOU. As an introduction, I used my supervisor's letter to the Vice- Chancellor that explained the nature and purpose of the study.

Prior to the interviews, I asked permission to speak with the participants and had them sign a consent form, which detailed their rights as participants. It contained a detailed explanation of their rights to withdraw from the study at any point should they wish to do so, and of their anonymity in any document and the confidentiality of their responses. In the case of the Vice- Chancellors, I noted that if I were to quote them, it would be evident who was speaking and they all agreed that that was not an issue for them. For all others interviewed I have made every effort to retain their confidentiality by not referring to them directly or providing information that might identify them. I retained all information in a secure place in my home throughout the study.

Chapter 4

THE CONTEXT OF THE STUDY

The transition from correspondence education to multi media approaches in distance education has made an impact, on the Indian educational scene. This transition is from an industrial society to a knowledge society where information communication technology (ICT) is the driving force that is developing convergence of technologies such as television, telephone and computers (Takwale ,2003, p. 15). The importance of higher education and the lack of availability of seats in the conventional universities have encouraged to students look at alternate modes of education. In addition the Government of India (1983) has stated the need for vocational and technical education. All these pressures have contributed to the growth of distance education and to the establishment of state open universities which seek to provide access and equity in education to the masses and the disadvantaged.
This chapter highlights the setting up of distance education and the growth of Open Universities in India. In order to provide a context for the case study, the establishment of YCMOU, the organizational structure, and the functions of the university are described.

DISTANCE EDUCATION AND THE OPEN UNIVERSITIES

The first attempt to introduce distance education in India was in 1962 when the University of Delhi established a Directorate of Correspondence Courses on an experimental basis (Yadav & Panda, 1995). Initially, it offered a BA and then added a B.Com. The 1970s saw the expansion of correspondence education to over 30 universities. The government set up an Open School in Delhi in 1979 bridging courses for out-of-school learners to enable them to complete their secondary education. Slowly the government and the states realized the need for open universities and this led to the establishment of two open universities, Dr

B.R.Ambedkar Open University, (BRAOU) in Andhra Pradesh state in 1982 and Indira Gandhi National Open University (IGNOU) in 1985. In 1986, the government announced its National Education Policy that promoted "Education for All" and suggested implementing distance education throughout the nation. Subsequently, seven open universities were begun in various parts of the country (Reddy and Srivastava, 2000).

BRAOU and IGNOU were the first established open universities. These have been followed by Rajasthan's Kota Open University (KOU) in 1987, Nalanda Open University (NOU) in Bihar in 1987, Yashwantrao Chavan Maharashtra Open University (YCMOU) in Maharashtra in 1989, Madhya Pradesh Bhoj Open University (MPBOU) in 1991, Baba Saheb Ambedkar Open University (BAOU) in Gujarat in 1994, Karnataka State Open University (KSOU) in Mysore 1996, Netaji Subhash Open University (NSOU) in West Bengal in 1997, and Uttar Pradesh Rajarshi Tandon Open University (UPRTOU) in Allahabad in 1998 (See Figure 1). India has the largest number of open universities in the world (Reddy and Srivastava, 2000, p. 2).

Currently, besides the ten state open universities and the National Open School, there are "State Open Schools in Haryana, Andhra Pradesh, Kerala and Madhya Pradesh as well as separate departments within the State Board of Secondary Education in West Bengal and Rajasthan" (Sharma, 1999, p. 3). In addition, the success of the state universities has led to the development of private institutions also offering distance education.

As rightly pointed out by Farrell and Haughey (1986), distance delivery systems have increased the opportunities for those learners who are geographically barred from taking advantage of conventional educational institutions. In addition, distance education is a step toward overcoming other constraints faced by the learner, such as family and work roles, which take priority over education.

ENROLLMENT

In 2000, the open universities served over a million students. Although these figures may seem enormous, they fall far short of government expectations. In 1964 The Education Commission had hoped that one third of higher education enrollments might be through correspondence courses and evening colleges and similar targets have been reiterated in the various government Five-Year Plans. Even in the 1992 Plan (GOI, 1992), the expected enrollment was to be 16.5% of the total enrollment. Yadav and Panda (1995) give various reasons for this shortfall. The majority of the offerings prior to 1985 and even today are through correspondence education offered by dual model universities which are often not given adequate funding for development of pedagogically appropriate learning materials. In order to overcome issues of quality, these correspondence institutes usually offered exactly the same courses in curriculum and content as would be provided in the classroom situation. However, concerns that the degrees would not be recognized by employers and conventional universities, and that in order to achieve funding targets, students without minimum qualifications had been admitted, kept the enrollment lower than predicted. The rise in the figures can be attributed to the development of open universities. They adopted methods of course development which were more systematic and designed for distance students. While their curriculum was equal to that of conventional universities they did not have to have exactly the same courses. In addition, the universities used a variety of media besides print including radio and television. Gradually, the stigma of "second chance, second quality" (Overland, 2000) is being removed from distance education.

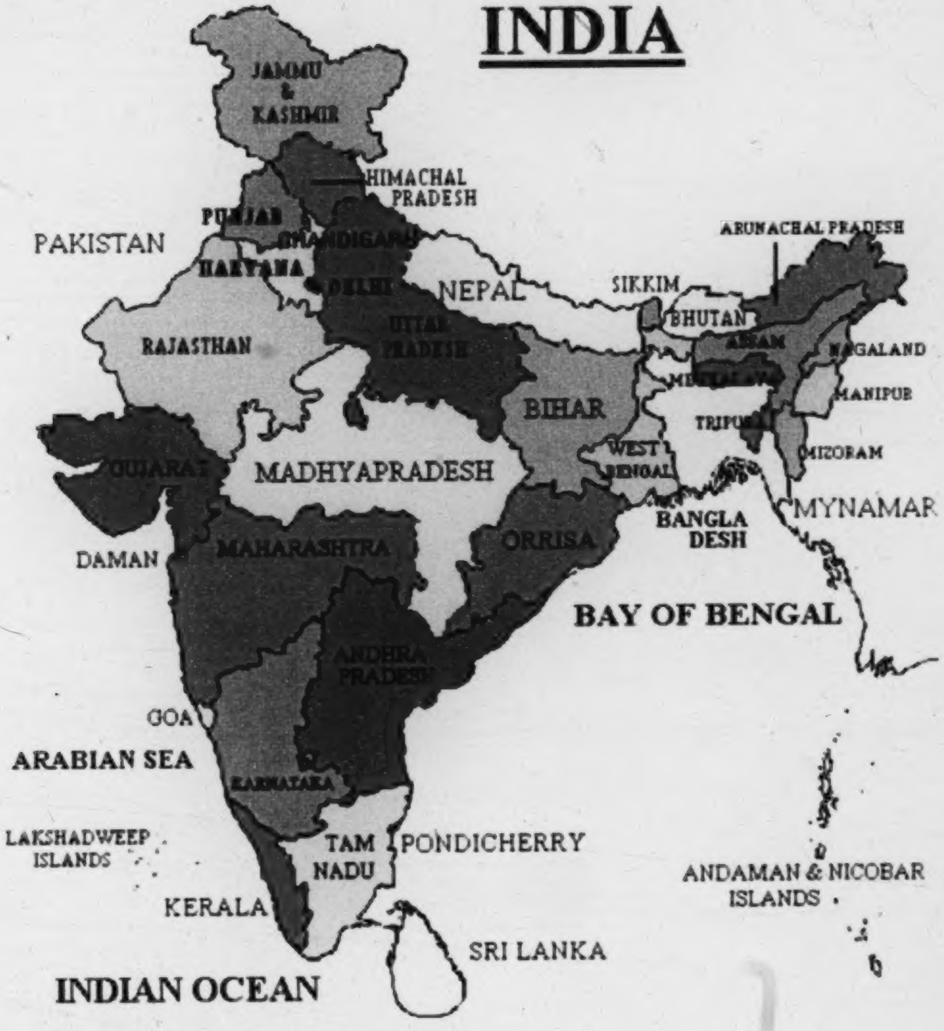

Figure 1 Indian State Open Universities

Srivastava (1999) has calculated that the enrollment in open universities has grown rapidly. In Table 1, Yadav and Panda (1995) show that in 1992 it was almost 13% of the total student enrollment. IGNOU (1994) figures put enrollment in 1994 at 83,000 students while Sharma (2001) estimates the 2001 enrollment to be in excess of 600,000. In 1998-99, BRAOU had 94,626 students (Sharma, p. 197) enrolled and YCMOU had over 64,184 (Reddy and Srivastava, 2000, p. 240). In 1999, the student enrollment in YCMOU had risen to approximately 105,000 (International Centre for Distance Learning, 2000).

Table 1

Enrollment in Distance Education

Year	Total Enrollment	Enrollment in Distance Education	
	(number)	(number)	(%)
1975-76	2,490,319	64,210	2.58
1980-81	2,918,865	166,428	5.70
1985-86	3,925,987	355,090	9.04
1990-91	4,988,061,	562,814	11.28
1991-92	5,289,170	678,063	12.82

Source: Yadav & Panda, 1995, p. 193.

In Table 2, the 2001 report from the Distance Education Council (DEC) shows the rise in the enrollment at state open universities since 1985. Currently there are nine state open universities and one national Open University. The table also indicates that the both IGNOU and YCMOU offer at least 60 programs and the total enrollment is in excess of 1,784,964 students. Since the Distance Education Council is a national body their figures have been taken as the most accurate. Looking at the trends one can conclude that there is a steady increase in enrollment at these open universities. Besides the open universities, one can still find the correspondence institutes and Institutes of Distance Education associated with traditional universities. Overland (2000), comments that of India's over 200 universities, 63 have a distance education unit. In addition, private open universities like Annamalai University, with a total enrollment of 418,681 students, provide professional courses in English through distance education. Its degrees are accepted in most states in India.

The Open University of each region reflects the culture of the state. Most provide education through the state language and in either English or Hindi. IGNOU is the only university that offers most of its courses in English and only a few courses in Hindi. YCMOU offers some programs only in Marathi, a few professional programs that are offered in English and most others where papers can be submitted in Marathi or English. Similarly, the preferred medium of instruction at BRAOU in Andhra Pradesh is Telugu. This immediately raises issues concerning course sharing and co-development as well as marketing beyond the borders of the state. Some open universities have confined themselves to serving their immediate urban market while others have used the boundaries of the state or have focused on rural populations ill-served by urban universities.

ORGANIZATIONAL STRUCTURE

The organizational structure of the other open universities is based on the original development of BRAMOU and the National Open University. Indira Gandhi National Open University's organizational structure, which is typical of many, involves nine schools and 14 divisions. The Board of Management, the Planning Board, the Academic Council, the Finance Committee and the Distance Education Council guide the Vice-Chancellor, the head of the institution. There are three Pro-Vice-Chancellors to assist with academic and administrative responsibilities (Panda, 1999, p. 238). Apart from the Distance Education Council, this format is similar to that in traditional universities.

What is different about open universities is not their administrative but their organizational and pedagogical structure. Most open universities have developed a system of study centres to extend access and provide local resources for students. Like the National Open University, all except NOU, NSOU and UPRTOU, have adopted what is referred to as the three-tier system. This means that they all have a

Table 2

Status of Open Universities in India

Detailed information	IGNOU (1985)	BRAOU (1982)	KOU (1987)	NOU (1987)	YCMOU (1989)	MPBOU (1991)	BAOU (1994)	KSOU (1996)	NSOU (1997)	UPRTON (1999)
Programmes on offer	60	23	22	8	60	30	11	29	3	41
Courses on offer	640	307	195	9	236	49	96	244	18	126
Students Registered	287366	106748	8980	1221	113500	55360	8575	32658	2798	1089
Students On Rolls	646651	450000	13000	1644	486651	108549	33892	40690	2798	1089
Reg. Centres	44	21	6	-	10	9	2	4	-	-
Study Centres	624	137	40	5	1451	667	61	52	36	38
Academic Counsellors	20364	4837	541	28	4521	3200	776	2812	733	214
Students awarded Degrees	53298	3030	-	404	60673	69343	1403	5065	-	-
Audio Prog.	1100	1759	7	-	298	5	10	285	4	-
Video Prog.	1050	298	1	-	189	18	-	132	-	2
Total Staff position	1389	473	324	25	263	69	85	321	51	2
Academic	295	98	25	1	60	36	39	66	10	1
Administrative	856	340	294	23	173	33	46	255	41	26
Technical/ Production	238	35	5	1	30					
Others		-	-	-			-			

Source: (DEC, 2001, p. 17)

Note: Figures in parenthesis depict year of establishment of the University.

headquarters or central campus, a system of regional centres and, in addition a number of smaller local study centres.

Regional centres provide a range of academic and administrative services and employ full time academic, administrative and support staff. The university hires the staff and the regional centres have facilities such as audio and video equipment, computers, telephones, and fax. The three major functions of the regional centres can be classified under academic activities, administrative activities, and promotional activities. Extending the study centre network is an ongoing challenge.

Srivastava (2000) noted that IGNOU "has 35 regional centres (including regional centres at the army and navy base); and more than 525 study centres. The university is aiming to reach 60 regional centres and approximately 1000 study centres by the end of its Ninth Five Year-Plan" (p. 222). The 2001 figures indicate that IGNOU has grown to include 44 regional centres and 624 study centres (Table 2).

Study centres form an important part of the overall structure of the university and are designed to provide extensive and efficient student support services to its learners. These centres are established in local higher educational institutions depending on the geographical location, the courses offered and the number of students enrolled. They function in the evenings, on holidays and during vacations, and try not to hinder the working of the host institution. They employ coordinator(s), academic counsellor(s) and support staff that are all part-time and are mostly the faculty/support staff from the higher educational institution. The study centres are equipped with multimedia facilities, library, audio/video cassettes, computers and science laboratories for practical experiments. From its inception in 1985, IGNOU has followed a uniform system of delivery of its core as well as support services (Panda, 1999, p. 251).

Three open universities function on a two-tier system; these universities (NOU, NSOU, UPRTOU) do not have regional centres and instead deal with their study centres directly. NOU, which began in 1987, initially had to close and has just begun again to offer courses; NSOU and UPTOU are the newest universities and like NOU have relatively few students and programs. NOU and UPRTOU have just over

1000 students each while NSOU has less than 3000. Initially BRAOU, which opened in 1982, adopted the two-tier organizational structure involving the main campus and the study centres. The headquarters had a Director and number of deputy directors who assisted in the functioning of distance education. During the Eighth five-year Plan, the BRAOU administration realized the importance of the three-tier structure and has now opened regional centres. Approximately 137 study centres are spread across 21 districts of Andhra Pradesh. Each study centre has an audio/video recorder and they also have library facilities. Srivastava described the transition: "During the Ninth Five-Year Plan, the university proposes to convert all the study centres at the district headquarters into Regional Resource Centres, which would be self sufficient to provide students with specialized services in that region" (Reddy and Srivastava, 2000, p.199).

MODE OF DISTANCE EDUCATION

Print has been the most common mode of provision in distance education though it has been supplemented with other media such as radio, television, and audio and videocassettes. Currently, the most sought after option is television. Each open university has partnered with a cable operator who provides services to students through channels that have repeat telecasts of programs, once in the morning and later in the afternoon. Most of these universities have followed IGNOU in developing two-way communication between the student and the instructor.

Print

This is the primary format of distance learning materials for students. Every student registered for a course gets a set of printed materials. Each university follows its own pattern in preparing the learning material. While some do their own development, others obtain developed materials from IGNOU and translate them into the local language of instruction. At IGNOU, a team of experts designs the learning materials. They employ external experts in the subject matter and involve the National Council of Educational Research and Training (NCERT) in providing advice and assistance. Each stage, from editing and printing to publishing and marketing, goes through various specialist departments.

Radio

Radio is an effective tool in distance education as it is well suited for distance learners. It is widely popular in rural areas especially where power is limited or non-existent since it can operate on batteries. Even where power is well established, power failures, which are common especially during the summer, make the flexibility of radio an important medium of communication. Sound broadcasting began in 1927 and in 1936 became a government-sponsored medium. Today Air India Radio (AIR) has a network of broadcasting centres--national, regional and local--providing 90% coverage and serving 99% of the population. The national channel, which serves about 76% of the population, reaches 64% of the country. It broadcasts in 24 languages and 146 dialects. AIR has special programs for women and provides educational programming from primary to university levels (AIR, 2001). All India Radio has made a special effort to provide programs in different languages at flexible times. For most of the universities, radio talks are a supplementary part of the course materials.

Television

The government initially controlled television in India, and *Doordarshan*, the single government sponsored channel, provided non-commercial educational and socio-economic development programs in black and white to a relatively small number of viewers. For the 1982 Asian games, the official channel introduced color and set up transmitters to provide a national reception network resulting in an immediate growth in the number of viewers. In the 1990s satellite television from CNN became available and the number of subscribers again expanded rapidly. Subsequently, local providers, such as Zee TV and Sun TV, began programming. The number of channels blossomed from two prior to 1991 to over 50 by 1996 (Indian television, History, 2001). Today there are over 70 million television homes with an estimated viewing population of close to 400 million. However, the cable networks are not robust and most people can receive only between 12 and 15 stations (Indian television, Current status, 2001). The next biggest breakthrough is likely to be satellite delivery of broadband signals that can support television signals. However, that is some time away so that for the next decade, it is likely that the present system will continue to expand to include over 100 million homes (Indian television, Future, 2001).

Television was used initially as part of government sponsored literacy and healthcare education programs. Today, there are a wide variety of programs but education has to compete with entertainment and sports. However, the advantage of pre-taped programs is that the cable provider can repeat the programs a couple of times a day and so some open universities have negotiated with local cable providers to include their programs. Both IGNOU and YCMOU use daily 30-minute broadcasts to reach their students. KOU and NOU use only the print media, although they have set up their own studios for the production of audio and videocassettes. Recently, "the Commonwealth of Learning (COL) has decided to establish a Commonwealth Education Media Centre for Asia (CEMCA) at IGNOU to facilitate the exchange of audio-video programs between distance education institutions in the Asian Regions" (Venugopal &Srivastava, 1999, p.112).

Online Education

The use of new computer technologies has joined the earlier forms of distance education (correspondence courses), and the use of one-way broadcast and point-to-multipoint-technologies. Today's technology enables asynchronous interactivity and information access online (Glen, 2001) but access whether through wireless, telephone or television cable is required. The Department of Telecommunications (2000) acknowledges that India's telephone density is about 2.8% compared to a world average of 14%, and 50% for developed nations (INOMY, 2001). This combined with figures of 2 million PCs, and 0.85 million Internet subscribers in a country with about 48% illiteracy for those 15 and over means that the Digital Divide is a reality that must not be ignored. At the same time, academics are being pressured to go online to keep up to date with their Western colleagues who now publish research reports on the web. The Ministry of Information Technology has stated that India requires 2.36 million IT professionals working in software products and services and IT and e-business services (INOMY, 2001). Recently, it published a Task Force report that recommends tripling the numbers of students in IT programs as well as to "use new technologies for increasing their (the programs') reach and effectiveness through a networking approach" (2000, Recommendation 4).

In India, the explosion of interest since 1999 reflects the need and pressure felt by the open universities to offer courses online. Although offerings are still at the initial stages, and the managerial issues seem far more complex than those faced in offering courses through other forms of distance education, the number of programs offered online seems to be on the rise. Individual education and training providers are now facing increased competition for students and the marketing of their courses. In addition, conventional universities offering the MBA have turned to online education because they do not have room for more students. Open universities have also realized this need and have started offering such programs online. Three major concerns in online education are access, quality and cost.

Green (1999) and Geoghegan (1996) identify online technology, as the largest area of growth in higher education and this trend is likely to continue. This move from print based teaching to the World Wide Web is changing how courses are offered and the culture of higher education in general (De Long, 1997). There are number of pressures that are influencing administrators to offer their courses online. Some of these are technology opportunities and the drive to use electronic technologies in teaching and learning; a demand for a greater number of higher education places and no corresponding increase in funding; a perceived cost-saving in delivery of online courses; increased competition and the need to be seen to be relevant and contemporary in rapidly changing areas; a large clientele of learners with diverse needs from varied backgrounds with different motivations, abilities, learning preferences, time availability and course content requirements; a demand for more client responsive and open and flexible courses; and the need to seek alternatives to government funding (Fox, Herrman & Boyd, 1999, p.153). In India, currently, most online education is confined to business, engineering and technology programs.

ADMISSION REQUIREMENTS

The minimum entrance requirements for the open universities are based on the objectives and the programs of each of these institutions. In some programs, there are no minimum requirements but in others the qualifications are similar to those required in conventional universities. The minimum entrance requirements also differ among institutions. YCMOU and BRAOU were similar in their approach of imparting education and do not require minimum qualifications in some courses of study. The same is true in Rajasthan's Kota University. One of the main objectives of these three open universities is to provide vocational and technical education to people throughout the state, mainly to help them obtain employment or enhance their skills. They also have targeted rural people and provide skill-based education according to their needs. This objective however can be in conflict with their desire to be accepted as academic institutions whose degrees are acceptable throughout the nation. Today BRAOU offers short and long term academic programs leading to certificates, diplomas and degrees in four faculties: Arts, Commerce, Social Science and Science. Most of the students at BRAOU come from the urban and semi urban areas, so the university's objective of providing employability skills to rural people has, to some extent, not been achieved. Hence one can see an imbalance in education provision for the people of this region. YCMOU 's major purpose was to provide education to the disadvantaged and women. These groups form a major part of its student body. It has undertaken a variety of certificate programs that have no formal entry qualifications. It too offers degrees and diplomas such as diplomas in engineering, electronics and computer technology as part of its mission to be a mass-varsity. KOU plays a significant role in imparting education to women hence its two most prominent courses are Bachelor degrees in Education and Library Science. Unlike the other open universities, IGNOU and KOU have entrance examinations.

The importance of providing education to students and ensuring quality and access has paved the way for open universities in India. Soon every state will provide distance education, whether using print materials, the oldest form of distance education or the latest multimedia technology. The advent of computer networking technology and the continued pressing need for learning have given these open universities the opportunity to develop as parallel rather than as substitute universities. This is of great benefit to the students. While some institutions may remain focused on technical and vocational courses, and others focus more on graduate programs and professional courses, they will continue to be joined by the conventional universities as they adopt computer technology to provide flexible learning options.

THE CASE STUDY SITE

In this section, the geographic location and the socio- economic background of YCMOU whose headquarters are just outside Nashik, Maharashtra is provided. A brief introduction of the state of Maharashtra, its population, physical characteristics, telecommunications, and education is followed by a brief introduction to Nashik itself. This is followed by a description of the organizational structure and operations of YCMOU.

MAHARASHTRA

Maharashtra, the third largest state in India with a population of about 90 million and literacy rate of about 65%, is a highly industrialized state (Panda, 1999, p. 298). In contrast to the agrarian economy that characterizes India, Maharashtra has the highest level of urbanisation of all Indian states. In contrast to the national average (25.7%), the proportion of the population that lives in cities is 38.69%. Mumbai is the state capital, with ~~a~~ population of approximately 9.926 million people. The other large cities are Pune, Nashik, Nagpur, Aurangabad and Kolhapur.

Situated in the western region, Maharashtra is bounded on the west by the Arabian Sea, on the north by the hills of the Satpudas and to the east by a series of mountain ranges that limit easy movement and form a natural boundary to the region. The steep western cliffs of the Sahyadri Range which form the edge ~~of~~ the plateau coastal area, rises sharply from the Konkan, the narrow coastal plain. These cliffs rise through a series of high steppes to the main plateau area, the Maharashtra Desh, which slopes gently to the east and southeast. All these areas are sharply cut by rivers that have worn deep valleys into the plateau and enabled communication routes. Much of the mountainous topography is not suited to agriculture so that the majority of Maharashtra's people live in the valleys and on the narrow coastal area. Although the Konkan is only about 50 km. wide, this too has been carved into a series of valleys and hills.

Power and Telecommunications

The steep topography and fast mountain streams have been an excellent source of power so that Maharashtra is one of the few Indian states that can meet its own power needs. It has achieved 100% electrification of its villages and has a broad power network so that outages are rare. This has also aided the development of telecommunications. The state has an extensive telephone network, most villages have telex, fax and telegraph offices, and over 120 towns use ISD networks to call abroad. Mumbai has at least 1.4 million telephones. The introduction of cell phones has also expanded rapidly.

Caste and Class

The Mahars are a caste-cluster, or group of many interrelated castes, living chiefly in Maharashtra state, and in adjoining states. They mostly speak Marathi, the official language of Maharashtra. In the early 1980s about nine percent of the total population of Maharashtra were Mahars. They were by far the largest, most widespread, and most important of all the officially designated Scheduled Castes (formerly Untouchables or *Harijans*) in the region.

Traditionally, the Mahar lived on the outskirts of villages and performed a number of duties for the entire village such as watchman, messenger, wall mender, adjudicator of boundary disputes, street sweeper, and remover of carcasses. They also worked as agricultural labourers and held some land, though they were not primarily farmers. Following Independence, the Mahar began to migrate in large numbers to urban centres (Bombay, Nagpur, Pune [Poona], and Sholapur), where they were employed as masons, industrial labourers, railway workers, mechanics, and bus and truck drivers (Encyclopedia Britannica, online, 2002). They continue to be an essential part of Maharashtra's economy.

Education

Maharashtra has an extensive and well-developed educational system. Its literacy rate at 64.9% is substantially above the national average of 48%. It has a large number of primary and secondary schools and over 1000 higher education institutions (Table 3).

This is a state where the female enrollment in the conventional system is as high as 51.2% of the total enrollment, an unusual figure for India where female enrollment figures have continued to fall behind the number of enrolled males. However, many fewer women are enrolled in distance education (8.2%) (Srivastava, 1999, p. 53). The numbers of girls in primary and secondary schools can be partly accounted for by the state's preferential education policy which provides free education up to standard XII for girls. With its Education policy, which came into effect in June 1996, Maharashtra became the first state in India to provide free schooling for all pupils up to standard X. This policy is expected to further accelerate improved literacy levels in the state. In its higher education sector, there are a combination of universities, management institutes and engineering and polytechnic colleges. Dastane (Maharashtra, 2002) notes that, as well as the identified higher

Table 3
Types of Schools in Maharashtra (1999-2000)

Type of schools	Number of institutions	Number of students enrolled
Primary	64,178	12,211,000
Secondary	14,258	8,169,000
Higher Education	1,405	870,000

Source: Maharashtra online (2002)

education institutions above, there are 2466 other institutions offering higher education. Together they cater to approximately 1.25 million students. Given its industrial orientation, the focus is on providing highly qualified technical and managerial staff to run industrial and business enterprises.

Nashik

Nashik, the headquarters of Yashwantrao Chavan Maharashtra Open University, is located about 195 km from Mumbai by road on the Mumbai-Agra highway. It is also a major pilgrimage centre. The most important event in Nashik is the sacred *Kumbha Mela*, held to commemorate a mythological story. The *mela* (a religious carnival) occurs every 12 years (equal to one day for the gods) and attracts millions of people from India and abroad. This event is held alternately at Nashik, Hardwar, Ujjain and Allahabad, which are among the major pilgrimage centres in the country.

Overall, Maharashtra has a well-developed economy with a combination of industrial and agricultural growth. There is no dearth of power, telecommunications and transport. The only drawback is that it has become overcrowded partly because of its own geography and because people from other states migrate there in search of work.

YASHWANTRAO CHAVAN MAHARASHTRA OPEN UNIVERSITY (YCMOU)

YCMOU, the fifth Open University in India, was established in July 1989. The university operates eight regional centres and over 1400 study centres (Table 2). The university headquarters is 12 kms. from Nashik. It has established regional centres in most of the major cities of the state: Bombay, Pune, Aurangabad, Nagpur, Amravati, Nashik, Kolhapur and Nanded (Figure 2). Every regional centre has study centres. These are positioned in almost every taluka (district) of the state. There are approximately 1100 study centres and 324 work centres that impart practical training

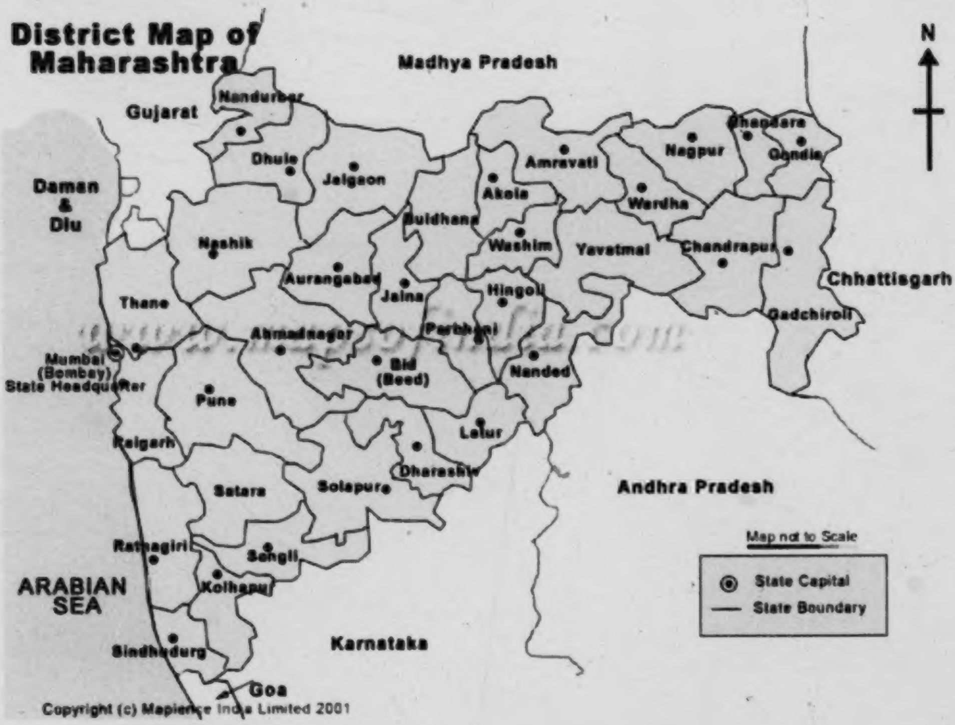

Figure 2 : **The Location of YCMOU Centre (Nashik) and Regional Centres**

Regional Centres: Nashik, Mumbai, Pune, Nanded, Ahmednagar, Amravati, Kolhapur and Nandurbar in computers and technical education. YCMOU offers approximately 60 different academic programs and more than 230 courses. Each program has its own study centres. Academic counselling is provided at the study centres in three major languages (English, Hindi and Marathi) by more than 4,500 teacher counsellors. Counselling refers to assistance with course materials and content, and supervision of practical tasks and experiments as well as program counselling.

YCMOU is referred to as an open education institution because it provides a variety of programs where there are no or limited prerequisites as well as programs with specific academic requirements. It is also called a mega-university. This is a term coined by Daniel (1999) who used it to identify distance education institutions with over 100,000 students.

MISSION OF YCMOU

YCMOU is the fourth university seeking to become a "*Lok Vidyapeeth*" or mass university (Venugopal & Srivastava, 2000). A mass university is one that serves all the people of the state by offering a wide range of professional, technical, vocational and practical certificate, diploma and degree programs. The programs are conceptualized and designed with this goal in mind. Most of the programs are offered in the regional language (Marathi) and there is a major emphasis on vocational and technical courses. The university is committed to becoming self-sufficient in operational costs and aims to use the latest techniques and technologies in its task of imparting education. It has developed linkages with the villages and rural areas so as to become instrumental in the developmental and transformational processes of the surrounding society. As its web site attests, it has adopted a philosophy of quality management and a work culture in its organization in which accountability rather than authority is the key feature of each post. The structure, functioning and philosophy of the university are different from conventional universities. It has relaxed entry rules, flexibility in course combinations, and flexibility in choosing the place and pace of study (YCMOU, 1998; 2001).

ORGANIZATIONAL STRUCTURE OF YCMOU

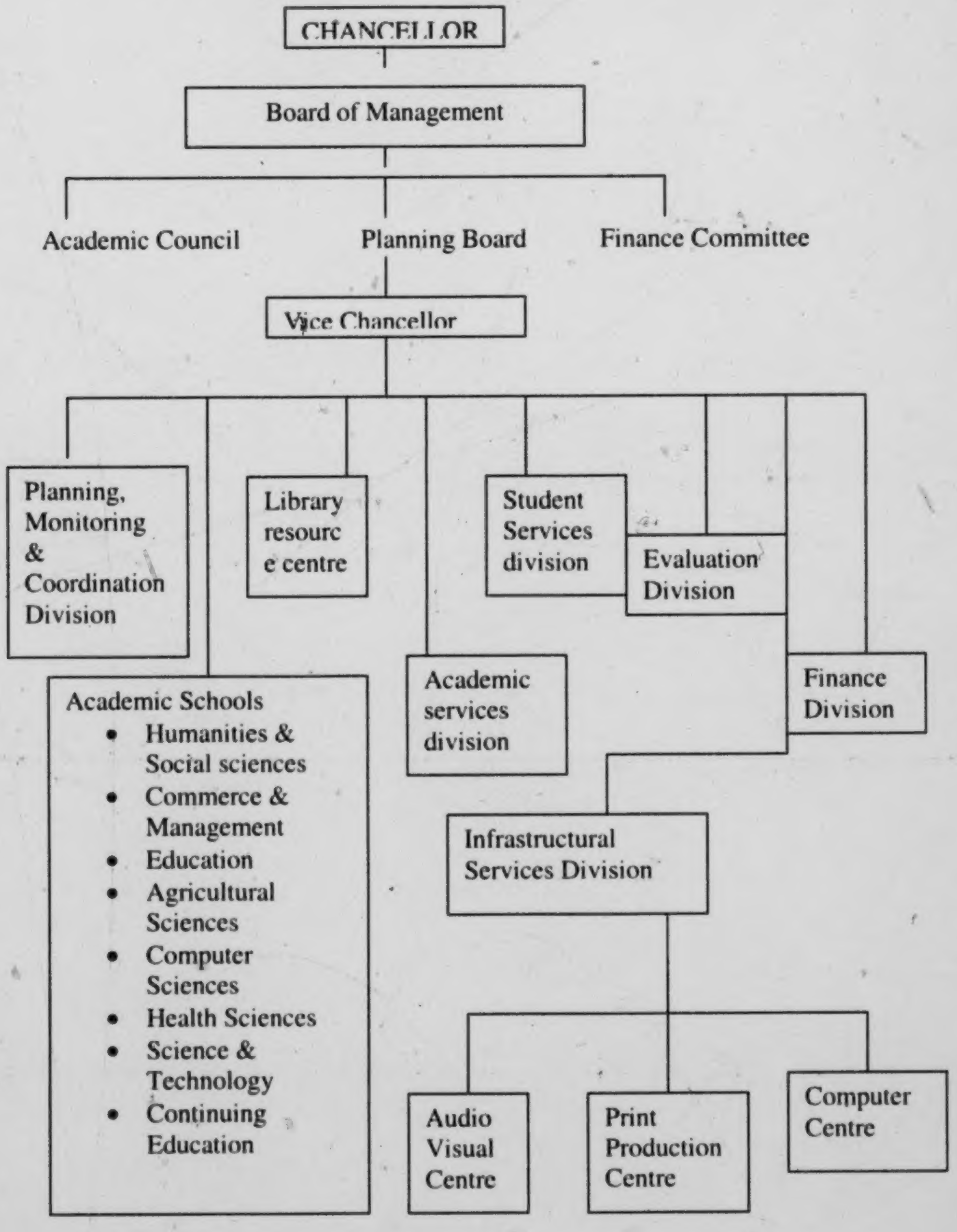

Figure 3: Organizational Structure of YCMOU

The governor of the state is the titular Chancellor of the university and the chief officer is the Vice-Chancellor. The structure (Figure 3) is similar to that of other universities with a Board of Management, Academic Council, Planning Board and Finance Committee.

Academic Division

The Academic Division has eight schools: Humanities and Social Sciences, Commerce and Management, Education, Science and Technology, Computer Science, Agricultural Science, Continuing Education and Health Sciences. Academic activities fall under the Schools of studies in these disciplines. School councils have been established for guiding the Schools in developing programs.

Academic Service Division

This unit oversees the development of the instructional materials. It consists of three centres: The Centre for Instructional Technology, the Research, Development and Evaluation Centre, and the Training Centre. The functions of this division are closely linked with the academic division, print production centre and audiovisual centre.

Audio Visual Centre

This centre develops the audio and video materials/programs which form an integral part of the instructional materials. Between 1989 and 1993, the audio-visual centre of YCMOU had produced 220 audios and 72 videos and one home kit (Takwale, 1994, p.11). YCMOU is second among open universities in terms of providing programs through television and other media.

Printing Production Centre

The printing of the self-instructional material (SIM) in most of the open universities is accomplished by allocating the job to various outside printers. However, in YCMOU the entire process of developing and producing SIMs is being done at the university itself using the latest technologies available. The university is using the latest computer technologies, particularly digital multimedia to integrate various media and instructional materials (Takwale, 1994).

Student Services Division

This division monitors the functioning of the regional centres and study centres. The division consists of a Centre for Regional Study, a Management Centre, a Student Registration section, a Stores and Dispatch section, a Centre for Learner Evaluation Technology, an Examination section and a Program Evaluation Research Centre. In Yashwantrao Chavan Maharashtra Open University (YCMOU), not only the university centre but the regional centres and the study centres are involved in the execution of distance education programs. The university centre plays a significant role in two major areas—course development and course delivery—and shares with the regional and study centres the responsibility for student support services.

Other Ancillary Units

Other units include the Finance, Infrastructure, and Planning and Coordination Divisions, a Computer Centre, and a Library and Resource Centre.

PROGRAMS

In 1998, the university offered 17 certificate, 11 diploma, 5 degree, 7 postgraduate (Graduate in North America), and 2 research programs (Srivastava & Reddy, 2000). By 2004, these numbers had risen to a total of 39 programs of which 19 belonged to the certificate level, four could be classified as professional vocational degree or diploma programs, 14 were technological diploma programs and two were at the post-graduate research level (Tenth Plan, 2002, p. 17).

Each course is based on a set of instructional print materials and accompanying texts, written by specialists in the field. The student is expected to be motivated to study and to spend time working through the materials. Counselling, and audio-visual and library facilities are provided at the student's local study centre. During counselling sessions, counsellors at the study centres help solve difficulties students experiencing.

and monitor any practical activities associated with the courses, such as laboratory experiments. The counsellors are usually teachers who work in the institution where the study centre is located, retired teachers or local subject experts.

The centres are usually open from 8 to 10 am and from 6 to 8 pm six days per week for access to library, audio-visual and multimedia resources. Counselling sessions are held on Saturdays, Sundays and holidays. The sessions focus on about 30% of the course material so students are encouraged to keep up with the course and come prepared for the one-hour sessions. Administrative staffs provide academic and general counselling on a one-to-one basis.

STUDENT EVALUATION

The system of evaluation in YCMOU is different from that of conventional universities. While each academic program has its own evaluation pattern, continuous evaluation is the key pattern for YCMOU. The Centre for Learner Evaluation Technology is focused on providing contemporary test item databases for all of these courses. This helps ensure that there is consistency across all the examinations. Students' examinations are marked at the study centres and the marks forwarded to personnel at the Centre for Learner Evaluation Technology who allocate the final grades.

COMMUNITY DEVELOPMENT

To promote the best interests of YCMOU, and to respond to societal needs, this university has set up a social organization called "Friends of Maharashtra Open University". The major objective in forming this association is to bring the members of the association close to one another and the university and help them in their development. The association also helps members to carry out their social responsibilities by associating more closely with local and regional problems of development. It promotes the causes of open learning through various activities and generates funds and utilizes them for programs that are relevant to the objectives of the university and the association (YCMOU, 1998). YCMOU also organizes the *Lok Samvad* Lecture series where renowned speakers from various fields are invited in order to boost the social and cultural development of the university students, staff and society. This is held every year between November 25 and December 6 (YCMOU, 1998).

FUNDING

The Commonwealth of Learning gave CAD $5000 towards a student bursary which formed the first amount in the Student Support fund. The university has also involved a bank to provide student loans (YCMOU, 1996). YCMOU receives the government grant to take care of its developmental costs, while the university meets its operational costs including all staff salaries from its own resources (YCMOU, 1998).

STUDENT ENROLLMENT

YCMOU started with courses in the Bachelor of Arts and Bachelor of Commerce degrees in 1991-92 and later introduced Master's level courses. Every year about 100,000 students register for various programs with the total number of registered students at about 600,000 (YCMOU, 2002). Recently, the university has established course-based online discussion and feedback forums on its web site where the learners can post their comments, queries, complaints or suggestions about student services and communicate with the faculty.

In 1998, 64,184 students were enrolled, of which 11,018 were enrolled in computer programs (17%), 5603 in education (8.7%), and 4269 in agriculture (6.6%), with professional courses less than 5%. There has been an upward trend in enrollment both at undergraduate and postgraduate levels, and in recent years the percentage of undergraduate enrollment is higher than that at the postgraduate level. The total of students enrolled in the Institute for Postgraduate Studies in 1995-96 was 7343 and this has not grown significantly. Unlike BRAOU or IGNOU, YCMOU also caters to the semi-urban and the rural population. The majority of the SC/ST (Schedule Caste and Schedule Tribe-Disadvantaged Status) students of YCMOU are enrolled for the undergraduate degree courses and the trend shows a rise in enrollment in professional courses such as Education, Management and Computer Science (Srivastava & Reddy, 2000).

SUMMARY

This chapter has indicated the importance of distance education in the present day context and the pressures which have encouraged India to establish open universities, adopted from the British Open University model. Further descriptions are given on the role played by distance education institutions and the government's decision to implement policies conducive for open universities. This was with the view to catering to the masses and providing vocational and technical education particularly in the rural areas.

This chapter gives information on the establishment of 10 state open universities and the national Open University, their role and mission in distance education. The organizational structure of these open universities are also highlighted besides the impact of higher education in India on these universities.

This study is limited to an Open University in Maharashtra state, in Nashik city, an overview of the state its capital city Mumbai and descriptions of Nashik, its location and geographical distance from other regions are presented.

The case study site and description of YCMOU, its organizational structure, functions and the eight schools, programs offered through the eight regional centres and 1500 study centers and the roles they play.

The chapter concludes with student enrolment and the growth of this university to become a mega-open university with a cumulative enrolment of 600,000 students

The case study site, YCMOU, is one of the oldest of the open universities. It is located in a rural area and does not have a large campus. Although it has over 4500 teacher counselors they are not faculty but contract employees to the study centres. The university offers a wide range of programs from hair dressing to PhD in research and uses over 1100 study and 324 work centres. Administration of a distance education organization, despite its simple organizational chart, is likely to have many challenges.

Chapter 5

THE ROLE OF SENIOR ADMINISTRATORS AND THE FIVE-YEAR PLANS

This chapter focuses on the views of senior administrators and how they influenced decision-making at YCMOU. To understand the administrative and decision-making role of senior administrators in YCMOU, there is a need to understand the immediate context of the university's organizational structure and operational procedures and the broader context of YCMOU's relationship to higher education and state authorities. In particular, the university's five-year plans will be discussed. These define the vision and objectives of the senior administration and reflect the funding priorities of the State.

ORGANIZATIONAL STRUCTURE

The organizational structure of YCMOU clearly indicates that India still follows the hierarchical pattern of administration with a top-down approach. The governor of the state is the titular Chancellor of the university, the Vice-Chancellor is the authoritative figure for all administrative and academic activities, and the pro-Vice-Chancellor assists the Vice-Chancellor. The Heads of Schools also sit on all major committees and on Academic Council, which meets once a month to plan and implement programs. It is these senior administrators at the centre who are the key players in planning, organizing and decision making at YCMOU. It should be noted that there is a great difference between the conventional and open systems of teaching and learning. In a conventional university, it is the faculty members who have a dual role to play; that of administrators and academicians. They are the major stakeholders. At YCMOU, while planning is done at various levels, the final planning and academic decisions are taken by the senior administrators.

The university's organizational structure falls in line with its functions and also follows the industrial model. Currently, the university operates with the help of eight Schools, the Academic Services division and several academic support centres. All these constitute the academic wing. Its administrative wing consists of the Infrastructure division, the Finance division, the Planning, Monitoring and Coordinating division, the Student Services division and the Examination division. The student services division and the evaluation division perform both administrative and academic functions.

Four statutory authorities of the university govern these structural units. These are the Board of Management which is the principal academic authority of the university, the Planning Board which decides the long term plans and policies of the university, the various school councils which consider various academic issues and submit proposals for approval by the Academic Council, and the Finance Committee that decides the broad financial policy for the university and controls the budget. This is essentially the structure set out in the Eighth five-year plan for YCMOU by Professor Takwale (YCMOU, 1993, p. 12).

YCMOU FUNDING STRUCTURE

In India, the central government, and in particular the Human Resources Ministry, is an important player in planning and policymaking in higher education. The ministry, which has responsibility for higher education, delegates certain of its functions to specific organizations. One of those organizations is the Distance Education Council (DEC), the apex body for all open universities in India. The DEC monitors the functions of the state open universities in coordination with IGNOU, the National Open University. Each university is required to prepare a five-year plan based on government priorities and submit it to the central government and to the DEC for funding.

The state government of Maharashtra receives its education budget from the central government and then, based on the allocated budget and the needs and priorities of the state, it distributes it among primary, secondary, technical-vocational and higher education institutions. It is to be noted that the amount is not evenly distributed; usually higher education receives the smallest allocation. In turn, based on the needs and priorities of the university as identified in the five-year plan, the state then funds YCMOU. Finally, the Head of Finance together with the Vice-Chancellor decide on the budget allocation for each school.

The state's budget allocations are partly based on YCMOU's funding proposals. Since its inauguration in July 1989, YCMOU has submitted three five-year proposals based on the government plan. Every five years, these proposals are reviewed and the senior administrators reflect on the goals achieved, and target future goals. The Eighth five-year plan was prepared in 1990. Due to a fast changing political situation and the introduction of structural adjustment, the national government plan was introduced in 1992. Subsequently, the third Vice-Chancellor planned the Ninth five-year proposal for 1997-2002. Presently, YCMOU is using the Tenth five-year plan (2002-2007).

THE ROLE OF POLITICS

From the perspective of several senior administrators, politics, both state and national, permeate the administrative life of the organization and limit its autonomy. As one noted, "Everything is politics." He went on to explain that Vice-Chancellors are appointed from outside and have particular agendas usually embedded in their five-year plans. Yet, among the administrators tasked with actually implementing the plans and involved in its everyday operation there was a certain level of frustration. Although they had been involved with the university since its inception, and felt they knew what would work best, they were forced to sit quiet and accept things in order not to be labeled uncooperative. In practice, another explained, "Although each Vice-Chancellor's term is for five years, actually they get to work for two years; if you look at the reports they try to reach the targets set by the previous plan in the first three years. It takes two years then to wind up."

The involvement of state and national politics is even more evident. One administrator explained, "This University was set up by a Congress [party] politician and now that party has split with NCP [the National Congress Party]. If you notice, no other leaders or politicians visit for any gatherings other than people from these parties." This meant that continuing support for the university depended on the support of these political parties that had claimed the founding of the university for themselves. He went on to explain that in addition, the National Open University (IGNOU) "acts like a big brother. Ours is a state Open University and most of the programs then are in Marathi so when we attend national conferences we do have problem in communication but we have developed a rich literature." This administrator was frustrated that the national university did not fully acknowledge the contributions of YCMOU to the field. Another commented,

> The only satisfaction is our university is much better than the other Open University where because of politics and its strong influence, staff seems stressed and alienated from each other, waiting to pull down others to reach the top. One has to be a "Yes man" to his boss, lose your identity and do what your boss wants you to do.

By implication, while YCMOU might be politicized, these administrators did not regard their own university as showing these characteristics.

Politics also permeated the policy-making functions of the university. The University Act notes that

> While framing specific policies the university shall consider:
>
> a) The work-load norms for individual/group working,
>
> b) Quality assurance measures and mechanisms,
>
> c) Accountability and efficiency measures in all its functions, products and services. (YCMOU, 2002, p.11)

In discussing university policy-making, a senior staff member suggested that "something is missing in these guidelines since they have not been properly implemented even 13 years after establishment." He was referring to the rational basis of the policy and the political realities of decision-making even at the local level.

THE FIVE-YEAR PLANS

What became increasingly evident in my discussions with senior administrators was the importance of the five-year plans. Not only were these the basis for funding from federal and state authorities but they also embodied the objectives of the Vice-Chancellor and were the basis for his evaluation at the end of his term, and the foundation for the following five-year plan. In conversations with university administrators, they frequently referred to and quoted from the plan. In a sense it embodied the direction of the Vice-Chancellor and formed the rationale for his decision-making. Since each Vice-Chancellor's term was closely associated with the university's five-year plan, the period of each plan will be examined to identify the development issues and strategic directions taken since YCMOU's inception.

INITIAL DEVELOPMENT

The first Vice-Chancellor, Professor Takwale, not only set up the university but also set its mission: to reach the unreached and to do so in the regional language. It took almost seven years to convince the policy makers and politicians about the value of distance education. While that task proved difficult but not impossible, it was then a challenge to convince academicians to teach at this university. Despite these drawbacks this university has grown to be a mega-university catering to approximately 600,000 students in 2004. YCMOU, being the fifth open university in India and the fourth state open university, did not have the advantage of learning from the experience of others. Despite this, the first Vice-Chancellor focused on "quality" in the day-to-day functioning of the university.

Professor Takwale, the first Vice-Chancellor, is one of the pioneers in introducing open and distance learning to India. He, along with Professor Reddy, the first Vice-Chancellor of IGNOU, took up the challenge of establishing open universities in India. His main goal was to establish a "Mass University" that besides offering general educational programs emphasized vocational, technical and professional education. His dream was to make this university a "Model State Open

University" that was not only unique when compared to other universities but also effective.

In 1976, Professor Takwale visited the UK Open University (UKOU) and was impressed by the progress of distance education. In 1983, he saw a videotape of Sukhotamai Thamarai Open University, Thailand's Open University, and saw how its work paralleled that of the UKOU. He resolved to set up a similar university in Maharashra. Professor Ram Reddy played the videotape for the Prime Minister of India, Rajiv Gandhi, who gave permission for the founding of the Indira Gandhi National Open University. In 1984, Professor Takwale showed the video to Shri. Vasantdada Patil, the Chief Minister of Maharashra, who approved the setting up of an open university in Maharashra. Unfortunately, the next day the government lost the election, and government ministers changed. The following year, Professor Takwale played the video to the Maharashra parliamentary assembly. While it passed in the assembly, it did not get government approval. In 1988, the government changed again and Sharad Pawar, who had shepherded the original motion through the assembly, became Chief Minister. He again got assembly approval and the university was inaugurated in July 1989 by Act XX (1989) of the Maharashra State Legislature.

Professor Takwale was appointed as the first Vice-Chancellor of Maharashtra Open University. The government committee appointed to decide on the location of the new university agreed to avoid the heavily populated cities where universities were already located and chose instead to locate the university in Nashik, a smaller centre with easy access to rural areas. The university's name is to honor Shri Yaswantrao Chavan, the mentor of Chief Minister Sharad Pawar.

Professor Takwale's vision for the university was reflected in the University Act (1989):

1. The goal of the university is to become a "Mass" University. Most of the programs are to be offered in the regional language (Marathi) though English is to be used at some levels for courses in Science and Technology.
2. The programs lay emphasis on vocational and technical programs
3. The university is committed to becoming self-sufficient in terms of its operating costs.

4. The university aims at incorporating the latest techniques and technologies in imparting education.

5. The university develops linkages to become instrumental in the developmental and transformational processes of society. (Eighth plan, 1993, p. 10)

Professor Takwale said his major goal was "to achieve universalization and equity of educational opportunity for the larger section of society." He had planned to do this through two sets of objectives. His educational objectives were: to create wider access in terms of target groups included, variety of areas covered by the programs and levels of education incorporated; to provide for the disadvantaged sections of society; to emphasize technical and vocational programming; to help link into the developmental processes of students and aid in their transformation, and to provide a system where students could move on to studies and research at higher levels. His management objectives were to develop such management practices as would help the university to become "efficient, economical and accountable." He believed this could be achieved through mechanization and automation of the functions of the university, computerization of all university functions, and making the university self-supporting in relation to its operations. With its goal of becoming a "Mass" university, its emphasis on vocational, technical and professional as well as general education programs, and its approach towards fostering a new work culture and developmental linkages, the university set out to create a distinct identity on the national scene.

THE FIRST YEARS 1989-1992

According to Professor Takwale the first three and a half years were spent getting the organizational systems and educational programs in place. He said he spent much of his time convincing and orienting students, academicians and society about the importance of distance education. He had been Vice-Chancellor at Pune University prior to his appointment and distance education staff and students were asked to relocate to YCMOU. This was not entirely successful. As well, he had to hire new staff from conventional universities and numbers of these subsequently left the institution so that it was a time of turbulence.

A number of people commented that developing and administering the new institution had its difficulties. One participant noted that

> Most of the professors came with great enthusiasm and interest –the only reason being they would never have reached the senior positions they got while accepting this post. They had freedom, money and position. Later they realized this was not what they wanted. Many staff left as quick as they joined.

Another commented that the transfer from one university to another had created confusion and that "some of the students whom I know personally well were very disappointed at the stress and strain they went through while this university was shaping up." Others felt that the Vice-Chancellor did not get support for some of his initiatives from these former colleagues: "The people whom he trusted did not support him. To an extent, leaving alone appreciation, he did not get cooperation to get this university going." Another long time member of the university explained:

> He may be viewed as an excellent administrator or leader but he was not tough enough. Every individual could take advantage of him. In India we need leaders who are tough taskmasters. He made a mistake in bringing in mass people from Pune University where he worked earlier.

Initially the university focused on three areas: the development and delivery of educational programs, the development of systems and procedures, and the effective procurement and utilization of resources. During this period, the university began to offer 13 programs, including three leading to the Bachelor of Arts, Commerce and Education degrees, and several programs in Agriculture. YCMOU staff developed the instructional materials specifically for these programs. They included print guides and textbooks as well as audios, videos, and materials on floppy disks. They also put in place an elaborate process of content, language and instructional editing to make sure of the quality.

For the 1992-93 year, over 30,000 students were enrolled. An overall analysis completed for the university suggested that the student profile showed that "the university had attracted a sizeable proportion of socially disadvantaged groups (Rural and Women), mature adults already in employment, as well as a fair number of elders who would otherwise not get entry to formal education." (YCMOU, 1993, p. 27) This meant that the university was reaching its target population. Based on an analysis of the examination results, the university concluded that "the dropout rate was rather high in the preparatory and first year level of the degree programs" and that "Course-wise, pass percentages ranged from 50 –75% and were similar to those of full-time students of conventional universities" (YCMOU, 1993, p. 39).

Based on the budget and the number of posts sanctioned by the government, the university hired staff in three categories: academic, professional and technical, and administrative. Over the three years, the number of academic staff rose from 8 to 42 while the number of professional/technical and administrative staff rose much more rapidly. This reflected the staffing requirements of distance education universities. As noted earlier, most of the academic staff were not continuing employees of YCMOU but instead were under contract to develop materials. Over 300 writers were hired, in addition to 94 editors, 84 audio and 30 video experts.

Funding the development of sufficient course materials to be able to offer a range of programs was an expensive proposition. YCMOU relied on the state government for funding for recurring operating expenditures. The educational programs launched were generated from student fees. This income was found to be insufficient to cover the operational costs incurred by the university and so YCMOU sought funding from other agencies. It received some development funding from the National Bank of Agricultural and Rural Development (NABARD) and from Yashwanthrao Chavan Prathistan, Bombay, for the development of instructional materials pertaining to educational programs in agriculture.

The initial phase of three and half years (1989-1992) roughly coincided with the second half of the state's Seventh five-year plan. YCMOU faced three major constraints during this period. First were financial constraints due to the high costs associated with the development of instructional materials and a fairly low enrollment rate. The university also faced time constraints in terms of the relatively long period required for the development of programs as compared to the constant social pressures to offer more and more diversified programs to meet specific education needs. This arose in part because Professor Takwale's vision for the university was to bring education to everyone including the disadvantaged. A third set of constraints concerned the limited availability of experts. Because expert course writers were under contract and not regular employees of the university, they could not devote as much time to the development of instructional materials as required by the university.

THE EIGHTH FIVE-YEAR PLAN (1992-1997)

The university took the above issues into account in developing its first five-year (1990-1995) plan, which is referred to as the Eighth five-year plan. It was based on the national Eighth five-year plan which was prepared for 1990 and implemented at the national level in 1992. In order to achieve the aim of becoming a model state Open University, YCMOU had adopted certain policies and approaches in 1989, as stated in the Eighth plan (YCMOU, 1989, p. 39). Professor Takwale put forward a decentralized model so that the university would avoid controlling all its functions from the head quarters at Nashik. He proposed that only those functions that required high quality maintenance and were specialized in nature be located on the main campus, and that the university decentralize its functions and activities to regional and district centres. The main reason for decentralization was "to reach the door step of every student" with education. The first Vice-Chancellor's vision involved development of an educational network for program delivery through a three-tier system of the centre, with regional and local study centres.

One of the major objectives of YCMOU, as stated in the Eighth developmental plans was: "To make vocational, technical and higher education accessible to larger sections of the society" (1973, p.39). To do this and to aid his model of decentralization, Professor Takwale held two meetings each month in every district at which he and a number of his faculty met with local academicians and interested parties to discuss the need for such programs.

Many staff, both teaching and non-teaching, were involved in these early meetings and felt that their expertise was recognized and considered. A number spoke of the level of openness and trust in these early years. "He had implemented good programs and always involved academics from the study centres," one noted. "Since we were in direct contact with students we knew their requirements more. He admitted this and encouraged his staff at the centre to communicate with us and be involved during changes. This never happened after this leader left." In 1995, Professor Takwale left the university to take up the position of Vice-Chancellor at the National Open University (IGNOU). One interviewee who acknowledged that Professor Takwale had many difficulties to face during his tenure, commented,

> The greatness was he never mentioned any of these and handled it well. He is the most dignified and dedicated person for implementing distance/online/technology-based education. His main concern is the student.

The Eighth five-year plan was designed to focus on issues consistent with the objectives for implementation of the University Act (1989). YCMOU was designated as a state university and hence believed that it should be seen to cater to the educational needs of the region it represented. Academic planning for the five years was broad-based and was designed to address three interlinked objectives: the developmental needs of the state emanating from needs at the national level linked with the objectives of YCMOU, and within the guidelines for planning received for the Distance Education Council (DEC/ IGNOU).

The document from DEC/IGNOU had given some broad guidelines for the prioritization of work and indicated programs where financial support might be available. These included programs of an innovative nature, joint development of programs involving two or more open universities, translation of IGNOU and other open university courses, establishment of an "Open Universities Network" with provision for sharing courses and programs, diversification of the media-mix of existing programs, strengthening student support services especially through improving study centre facilities, and continuing education and training of open university personnel. Based on this list and its focus on the developmental needs of the state, YCMOU developed a strategic plan re program development. They decided to offer programs that were new and innovative, and to strengthen and diversify programs based on the employment needs of the students. They decided to offer short-term vocational/technical programs but also to cater to the socially disadvantaged and underprivileged and to offer programs that catered to a large clientele. They identified four major sectors for program development: the general and cultural sector dealing with degree programs; the services sector offering programs in education and management; the industrial sector with programs in computing, electronics, and engineering and the agricultural/ agro-industrial sector offering programs such as horticulture, water and land management, and agro-processing and marketing.

> In terms of program development, the lessons learned from the long preparation period and the demands for high levels of expertise, both associated with high costs, led the university to consider obtaining materials from other open universities. After negotiation, the university adopted degree programs in engineering and nursing as well as several diploma programs from IGNOU as well as a degree program in journalism, travel and tourism from Kota Open University and a number of individual courses adopted from other open universities, some foreign universities and the Commonwealth of Learning (COL).

The lack of sustained funding for new program development, led Professor Takwale to propose a new financial policy in the Eighth five-year plan. He suggested that funding for the university be stabilized through a Block Grant: "the university shall receive from state government a Block Grant fixed for the continuous development tasks going on in the university. This Block Grant should be revised every three years." He also proposed that all fees should include at least the amount required to cover minimum operating costs and those with a potential higher return for students should include development costs:

> The university shall charge fees on cost basis. The programs meant for weaker and disadvantaged sections should have fees to meet the minimum operational costs. The programs having high market value and economic benefits should have higher fees covering the development costs.

At the same time, the university would develop a student support fund: "for supporting students in their fees, providing them with soft loans to be paid afterwards and bank services for disbursement of loans." In addition, YCMOU would work with socio-economic institutions, donors and others to attract social and economic support to reduce students' reliance on grants from the State. Finally, the university "would develop substantial endowment funds and reserve funds for supporting its sustained academic activities and overall development" (YCMOU, 1999, p. 73). Through these means, Professor Takwale hoped to release the university from its dependence on the state and help it become self-sufficient in terms of its operating costs.

Besides developing programs for its students, the university was also building its own infrastructure at Nashik. Over the eight-year period it built a main administration building, guest house, transit housing, servant quarters, officers' bungalow, row housing and warehouses. In December 1996, 260 academic, technical/professional, and administrative staff worked for the university. Of these 226 were continuing and 34 contract staff. In addition, YCMOU employed 4721 academic counsellors, most under contract, in its seven regional and 580 study centres throughout the state.

Following Professor Takwale's departure, Professor Bohite was appointed as Vice-Chancellor. A Municipal Commissioner from Nashik, his tenure was for a brief 18 months (1995-1997). He did not come with a vision for the university and so the administrators continued to implement the directions set out in the Eighth plan. Despite their work, new issues continued to arise. These involved staff work loads, instructional materials not reaching centres on time and a lack of coordination between the central campus, the regional centres and the study/work centres.

Nonetheless the university's programs grew to 45 programs by 1997. The annual student enrollment had also increased rapidly. Beginning with a small learner population of 1590 students in 1989-90, it grew to 9,526 in 1990-91, 14,250 students in 1991-92; 30,223 in 1992-93, increasing to 56,967 students in 1995 and 62,728 students in 1997-98 (YCMOU, 2002, p. 23).

THE SECOND PHASE 1997-2002

The third Vice-Chancellor of YCMOU was Prof Ashok Pradhan. During his tenure as Vice-Chancellor, he is credited with launching new academic programs that were not only knowledge but also skill oriented and with catering to all sectors. He targeted program development in the four areas previously identified in the Eighth five-year plan and launched programs including a Bachelor of Library Sciences, Master of Library Sciences, a B.Sc in Information Technology, a Diploma in Electronics and programs in Agriculture and Computer Science. During the Ninth plan period, (1997-2002), YCMOU focused its attention on launching more technical and professional programs, collecting feedback regarding programs already launched, modifying where necessary and introducing additional courses in existing programs so as to offer wider scope and flexibility in course selection. The operational strategies were streamlined, infrastructure strengthened and linkages with other institutions established. In addition to expanding student enrollment, Professor Pradhan focused on technological developments including online programs, and the expansion of the study centres.

STUDENT ENROLLMENT

The student enrollment figures continued a steady increase (Table 4). From 62,728 students in 1997-98, the figure reached 110,683 students around the end of 2002. The most recent figure is of 120,000 students for 2004 (YCMOU website). While the annual enrollment for 2002 crossed the 100,000 mark, the cumulative enrollment was around 600,000 students.

DELIVERY NETWORK AND OUTREACH

The initial three-tier system that had been inaugurated at the beginning of YCMOU was continued and expanded. YCMOU began in 1989-90 with 15 study centres and in 2000 it had reached a target of 1445 registered study centres and 63 programs. The present status regarding study centres is that on average there are about 4 local study centres per district for humanities and social sciences programs, one study centre per district for programs in agriculture, teacher education and engineering and 2 study centres per taluka for computer programs. Maharashtra has 339 talukas. The average radius of a taluka is 4.5 kilometers and that of a district is about 50 kms. This network strives to redress issues of access and equity. The following table presents the region wise enrollment for the period 1995-2002. This table clearly indicates that the enrollment rate of students is very high in the Mumbai region as compared to the other regions. Kolhapur stands second and the Pune region is third in enrollment.

Table 4

Regional Centre Wise Student Enrollment

Region	2001	2000	1999	1998	1997	1996	1995
Amravati	10, 709	9,444	10,496	6,864	6,606	6,934	6,495
Aurangabad	4,603	4,489	8,326	3,360	6,081	7,108	7,238
Nanded	5,175	5,081	6,287	2,913	---	---	---
Kolhapur	14,252	9,648	11,860	8,246	7,547	9,493	11,103
Mumbai	25,493	17,725	24,357	12,727	11,884	11,541	7,690
Nagpur	11,579	9,702	13,277	6,648	6,536	7,443	7,219
Nashik	22,871	45,015	20,682	15,164	14,139	13,412	10,719
Pune	16,001	12,652	15,436	8,282	7,143	6,818	6,503
Total	110,683	113,756	110,721	64,184	59,936	62,728	56,967

Source: YCMOU, 2001, p.20

While these are overall figures, each regional centre administers a number of local and work-study centres. Marketing and advertising is shared between the regional centre and the participating School. In addition, since decisions to run student classes are based on a quota, it is to the study centre's advantage to encourage a sufficient and sustained enrollment. Apart from seeing the region-wise enrollment for all programs, it is important to look at the enrollment rate based on the category of the program. The following table shows this.

Table 5

Program Wise Enrollment of Students (1995-2001)

Program	2001	2000	1999	1998	1997	1996	1995
Liberal	53,460	46,130	45,624	45,667	38,899	39,423	34,336
Professional	13,001	7,305	7,170	10,696	5,911	6,280	5,230
Technical	42,711	58,876	20,882	3,389	13,488	15,022	15,387
Post Grad	1,511	1,445	1,118	4,452	1,638	1,917	2,014
Total	110,683	113,756	74,794	64,204	59,936	62,642	56,967

Source- YCMOU, 2002, p. 25

This table shows that there has been an extensive increase in all program areas except the postgraduate. While liberal program show steady growth, professional and technical programs show a sudden expansion in 2000-01. Postgraduate programs include any advanced diploma or degree programs post-baccalaureate.

PROGRAM DEVELOPMENT

The number of programs offered by YCMOU grew from 28 in 1995 to 45 in 1997. By 2001 the number had jumped to 75. Of the total programs developed between 1996 and 2001, 19 are at the certificate level, 4 may be classified as professional/ vocational degree and diploma programs, 14 are technological degree and diploma programs and 2 are post graduate and research level programs. While there were no new program development activities at the general degree and diploma level, the existing programs were restructured. The older programs had been available only at the general level, while the restructured program provided for specialization in subject disciplines. This provided greater flexibility and choice to the learners and increasing the overall effectiveness of the programs. As a result, the dropout rate of students came down considerably and there was also increased registration of students who were looking for specializations in certain fields.

Self-instructional materials were made more effective through increased use of multimedia like audios and videos. There were considerable changes in curricula with respect to the practical component, with strong emphasis given to fieldwork related activities. The number of study centres increased by 100% and reached 1455 by 2001. This ensured that for many academic programs a study centre was generally made available within a radius of 4 kilometers from student's residence or place of work. This aspect has helped address issues of access and equity, thus achieving special significance in the direction of becoming a "mass varsity".

INFRASTRUCTURE AND SUPPORT SERVICES

The key components of student support services include the supply of self-instructional materials, face to face counseling, audio cassettes, video cassettes and CD ROMs, use of radio and television broadcasts as well as online education through the Internet. All these require an efficiently functioning delivery network. The university had a network of 778 study centres in 1995 and that has almost doubled to 1455 in 2001. The university's human infrastructure support facility that is mandated to provide efficient services to the students enrolled is of significance. As indicated earlier, in 1995 there were 56,967 students, whereas the enrollment for the year 2001 is 110,683 students. The human resources available at the Nashik campus to support these student numbers are only 60 academics, 30 technicians and 173 administrative persons. Keeping in mind the rapid increase in student enrollment, the corresponding workload in terms of their registration, dispatch of learning material, examinations and evaluation, and organization of teaching activities increases exponentially. To cope with this, the University has begun to rely on computerization and automation to maintain efficiency and quality of the program and their delivery to students. YCMOU is trying to achieve this by installing computers and developing multimedia techniques in teaching and learning and providing the same to study centres.

MULTIMEDIA DEVELOPMENTS

During Vice-Chancellor Pradhan's tenure, there were several developments with multimedia. YCMOU developed its own website, www.ycmou.com, on which relevant and important information about the university and the programs offered by the schools is provided. Some schools have started offering academic counselling online and have developed online student forums for each course. The university also started a monthly magazine called *Samvad* (Dialogue) and this has increased the effectiveness of its interaction with learners. This magazine provides information pertaining to examination schedules and other university circulars, and advice to help guide students through difficult topics. As media networking attained importance, YCMOU introduced a pre-determined telecast schedule called *mukta vidya* (Open Learning) and started providing counselling regarding various programs on *akashwani* (radio) and *doordarshan* television.

The university established a LAN (Local Area Network) at its headquarters in Nashik. The OCR (Optical Character Reader) and the OMR (Optical Mark Reader) were introduced for evaluation of student's examinations. The software for this was developed and implemented in-house by university faculty. This eliminated the problem of unfair practices or biased markings as pointed out in student feedback.

Question banks were extensively developed and multimedia-based Compact Disks were provided to the study centres for the benefit of students in connection with specific academic programs.

During the tenure of the second Vice-Chancellor, the university became one of the largest in the world offering various agricultural extension programs. The students, essentially farmers, study the course content but also have genuine hands-on experience on the farm. In fact during this period YCMOU saw manifold achievements with regard to the way the academic areas handled their use of appropriate learning technologies to reach out to those who would otherwise not have access to education. YCMOU has made major innovative strides and invested huge sums on capital expenditure for creating a proper infrastructure and resource-base, and has thus gone a long way in establishing an effective open education model for the state of Maharashtra. Some of the achievements during the Ninth five-year period are highlighted in the table that follows:

Table 6

YCMOU Profile at a Glance

Information Details	1997	2001
Programs on Offer	35	75
Courses on Offer	155	286
Students registered	62,728	110,683
Students on roll	204,644	590,000
Regional Centres	07	08
Study Centre	580	1,500
Academic Counsellors	4,721	4,925
Students awarded Degrees	11,875	110,589
Audio Programs	221	298
Video Programs	91	212
Staff Strength (Total)	260	344
i) Academic	41	64
ii) Administrative	180	251
iii) Technical/Production	39	29

Source: (YCMOU, 2001, p. 33)

In 2001, the university received recognition from the University Grants Commission (UGC), New Delhi under section 12B of the UGC Act. This made the university eligible to receive grants from central government agencies. In addition, the postgraduate programs of the university were accredited and accorded equivalence to two refresher courses prescribed for college and university teachers in the Career Advancement scheme. The Distance Education Council (DEC/IGNOU) provided financial assistance for research activities in the university and the university had celebrated the inauguration of the academic building.

In 2002, the internationally renowned Commonwealth of Learning, based in Canada, presented an award for institutional excellence to YCMOU. The citation read:

> What impressed the panel particularly was the institution's use of technology, not just to attract a wide range of learners, but to provide sustained academic support to retain them in the system. To do this the university did not adopt a "one size fits all approach" but a variety of practices on line with the students' preferred learning styles and access to technology.

During this period the university made considerable progress in diverse areas, however some of the activities initiated could not be completed because of paucity of funds and inadequate by trained manpower. Due to the rapid increase in enrollment and the growth of study centres and work centres, the university had a massive workload and had to initiate frequent quality checks. In addition, online programs were initiated but faced stagnation due to technological barriers in some regional centres. Access and equity continued to be major issues in implementing online education.

Many people spoke of the excellent leadership of Professor Pradhan. One noted: "the general opinion of staff was that he was approachable and did not thrust his views on others . . . He gave freedom to each staff member and coordinated the day-to-day functions well." One counsellor acknowledged, "To be honest, I often hear from the staff at the centre that he is excellent and good," however he went on to complain that there were still student issues which needed to be resolved.

> What use is this to us? We want someone productive. We had a number of changes, most of them were like orders; no one consulted us. Even after expressing our opinion on the difficulty in implementing or the need to go with the earlier way, we were not acknowledged. We want administrators who do not spend their time handling class four employees to avoid strikes, but instead are focused on the main objective to provide access to students.

Others, who had been at YCMOU throughout, were inclined to agree that Professor Pradhan was an able administrator but some resented the continual appointment of an outsider to the post of Vice-Chancellor. In a system that lauds the Vice-Chancellor for the work of the university, some felt that their contributions had been overlooked. This is particularly difficult for an open university where the core functions of course development and delivery are shared among many specialists.

Some were frustrated that all the objectives set out in the Ninth plan had not been met and felt that this was due to lack of leadership. One noted: "He was fortunate to see tremendous growth but the award he received should go to the schools that implemented changes. I can see only three of the seven schools as seriously committed in their work." However others spoke about the outstanding commitment of long-time employees which was essential to the functioning of the university. New staff were supportive but one spoke about the need for more training to help them understand the system, commenting:" I think it is the responsibility of the leader to act as a friend, philosopher and guide to the new staff. Otherwise they will never see new staff."

The rapid growth of the university had also resulted in other problems. People in one school commented that they were open to change and criticism but they felt impotent in not being able to control the provision of materials to students in a timely fashion. "We have to do something regarding the print material reaching on time. That's not our department. The issue has been with us since 1992 and is not yet solved." He concluded that he was hopeful that the new Vice-Chancellor would be able to resolve this issue. Professor Pradhan left the university in February 2002 and currently is a consultant to universities.

THIRD PHASE 2002-2003

The development of the Tenth five-year plan (2002-2007) coincided with the appointment of another Vice-Chancellor. Like his predecessors, Professor Sabale had a background in science and a strong interest in distance education. He was the former Vice-Chancellor of Kolhapur University, Maharashtra.

The mission for the Tenth plan period is "liberating the learner". As explained by Professor Sabale, "YCMOU is trying to transform a consumerist society to a rational society, carrying the message of great social reformers to the masses so as to enrich their cultural perceptions and enhance their creative faculties." Since Maharashtra is the second largest state in India for higher education, Vice-Chancellor Sabale was of the opinion that the Open University could play a leading role in helping this transformation. In the design of its courses, YCMOU had adopted a modular approach. This meant that multiple entry and exit were possible, and that students could progress through the system. They could start with a certificate course and move on to diploma, degree and post graduate programs in any discipline. He saw these strategies as helping in the retention of students at various levels, and being a novelty as compared to other open universities.

He had strong opinions about the future direction of the university. Many of his initiatives were further developments of initiatives started in the Ninth five-year plan but he also strongly believed in the impact of globalization and the need to ensure that the university kept up with current changes. Professor Sabale explained that learning had become networked and one needed to think globally. Within a few months of taking over as Vice-Chancellor, Professor Sabale had networked with other open universities, and invited speakers from other countries as well as specialists in open universities to assist YCMOU staff. Sir John Daniel, then Assistant Director-General for Education, UNESCO and now President, Commonwealth of Learning, came to speak in November 2003, his talk was entitled, "Education for all and the role of open and distance learning: The global scenario."

Professor Sabale explained that costs were a major concern as the state funding was insufficient to cope with the continuing new developments required and he took several steps to try to improve the situation. He lobbied for and received a change in the mandate of the university. YCMOU was no longer confined to serving students from Maharathra only but instead given permission to compete with other nation-wide universities for national and international students. He also obtained two significant changes to the operations of YCMOU through changes to the basic mandate of the University Act, one stating that "A basic policy of the state government is carried to the learners and these policies are reflected in YCMOU curriculum" and two, that "YCMOU is a self-financing institution where core faculties are appointed and the rest are on a contractual basis" (Sabale,YCMOU, 2002 p. 3). The first change reflects the interpenetration of politics and education and could be seen to limit the professional autonomy of faculty. The second even more directly speaks to a hiring model which limits the development of a university community but also reflects one of the university's original objectives to be a network of opportunities provided through the services of a variety of organizations rather than a monolithic structure. His cost containment initiative concerned the study centres.

While program development is an important aspect in any university, the effectiveness of the delivery of these programs remains a challenging issue for open universities. YCMOU had already introduced a number of effective inputs for improving the delivery system over the previous 13 years. Based on this experience, the university during the Tenth plan, proposed to strengthen the regional centres and study centres. They planned to do this through a number of initiatives.

The first was the Virtual Learning Centre Project. It had been funded by a Special Grant of Rupees (Rs) 100, 000 from the Distance Education Council and Rs140, 000 from the government of Maharashtra for Phase 1 during the Ninth plan period. Phases 2 and 3, which were to be completed during the Tenth plan period, needed an additional Rs 500,000. (In 2004, CAD$1 = Rupees. 34.) The objective of the grant was to extend the network of down-linking facilities to approximately 500 study centres. Professor Sabale felt that distance education had become a thing of the past and saw the convergence of multimedia and traditional approaches as a strategy to be followed. He saw the need for a massive satellite uplink-downlink network because he believed that satellite-based videoconferencing would provide better services to students. Currently YCMOU is building an audio-visual studio worth Rs 5,500,000 to provide an uplink facility at the campus and downlinks at the study centres. They have signed a contract with the Indian Space Research Organization (ISRO) to transmit satellite-conveyed education to the learners.

The first phase of this interactive classroom model that Vice-Chancellor Sabale planned to develop will involve student counseling. A counsellor/academic specialist of a school will be in the studio receiving and answering questions from students. He already anticipated certain problems with this program design; each program is of 45 min. duration and only one student at a time can ask a question so for 1400 study centres catering to students this technique may not be feasible. He said he felt the need to replace the telephone system with the Internet where the questions are stored on hard discs and teachers can reply in 48 hours. Even with this scheme, there was a possibility of delay due to shortage of manpower. He also had concerns regarding the uniformity of this approach and believed that for schools like humanities, agriculture and continuing education, this technique was not user friendly and these areas could consume a great deal of time. In his opinion, the best possibility for these schools was to use print and multimedia with contact sessions.

On November 25, 2003, on the anniversary of the death of Yashwantrao Chavan, YMCOU's new television channel, *Yashbharathi*, was launched. The educational programs originated on the Nashik campus and were beamed via the GSAT satellite by ISRO to over 170 remote learning centres spread across the state (Times of India, July 21, 2003, p. 3). Professor Sabale announced that YCMOU was only the second Open University to implement a satellite-based education program. "He further added that if proper funding is made available to the university, around 1000 more remote centres could be set up by 2006" (p. 3).

A second initiative was to increase the speed and level of computerization at the centres and to connect all the regional centres and district centres through Internet and, in addition, to provide them with one way and two way audio teaching and direct videoconference and distributed classroom facilities. This coincided with the plans of the State government who have launched a new corporation, Maharashra Knowledge Corporation Limited (MKCL), to provide "information technology-enabled education in all university, colleges and other educational institutions." (Rao, 2001, p. 3)

A third initiative was the Student Information Centre/ Pre-admission Counseling Centre project. The university plans to create a network of "Student Information Centres" through its own network of selected regional centres and study centres. The network would involve approximately 50 study centres in Maharashtra at strategic locations.

A fourth initiative was the expansion of the number of study centres. In Maharashtra there are 35 districts and 339 talukas. Earlier, the university had a three-tier system of delivery starting from the Nashik headquarters to regional centres to study centres. Some of these study centres served a district while others were more localized and some were located in workplaces. In the Tenth five-year plan period, YCMOU plans to have study centres in each taluka. This would be a four-tier delivery system following a route from head quarters to regional centres to district centres to taluka study centres and work centres. As Professor Sabale explained, if 1000 students register for YCMOU programs at each taluka study centre, then YCMOU should be in a position to enroll 339,000 students from the 339 talukas in Maharashtra. If each taluka reaches an enrollment rate of 500 students then YCMOU can become self-sufficient.

Another initiative identified in the Tenth five-year plan was the establishment of a rural regional centre. The National Education Policy (1986) had envisaged the concept of a rural university, but due to technical reasons this plan could not be implemented in totality. The government has however entrusted YCMOU with the responsibility of creating a rural university at Sindkhed Raja in Buldana District. YCMOU has a number of programs in agriculture, continuing education and computer science that can be of help to the rural masses. YCMOU therefore plans to give Sindkhed Raja the status of a regional centre. For the coming five years this activity will be on a project basis. The virtual university on semi-arid tropics (VUSAT) was set up on June 5, 2003 in association with the Andhra Pradesh-based, Integrated Crop Research Institute for Semi-Arid tropics (ICRISAT) and the Swami

Foundation and will focus on bringing techniques for dry-land horticulture to the masses.

Two other initiatives were identified in the Tenth five-year plan. A series of training and development activities for staff had been envisaged. As stated in the plan these included:

A. Organization of orientation programs for counsellors

B. University staff training and development

C. Application of new technology:

teleconferencing
broadcasting
up-linking of schools
evaluation system (online/on demand examination).

(YCMOU, 2001, p. 53)

In addition, the building program at the Nashik campus was to continue. The Academic Building had been completed in 2001, and the university planned to construct a fully-equipped AV Building. An Examination Building was also planned to cope with the expanded computing requirements as several thousands of students enroll and take examinations.

Although he had only taken over in March 2002, Professor Sabale's leadership had already been noted. One administrator in assessing the situation commented:

> Within two years he has done remarkably well. He has put our university on the international map. We have had guest speakers such as Sir John Daniel who can lend us support. Our university has signed an MOU with ISRO to offer satellite-based programs. The School of Health Sciences has already started offering programs in nursing and health management. Our Agricultural school is tied with ICRISAT to offer programs online. Just in offering doctoral programs, the response has been very high. All this clearly indicates that slowly there is a movement towards the Open University. There is a positive indication of growth.

While the direction and objectives for the university are set out at the most senior level, the actual operation of the university occurs through the Schools and study centres. The following two chapters describe the administrative decision-making, course development, collaborations, partnership, tensions and issues for each in turn.

Chapter 6

ADMINISTRATIVE DECISION MAKING, ACTIVITIES AND EVALUATION: THE ROLE OF THE SCHOOLS

YCMOU has eight schools: Agricultural Sciences, Commerce and Management, Computing Science, Continuing Education, Education, Health Sciences, Humanities and Social Sciences, and Science and Technology. This chapter is based on interviews with the Heads of Schools and various academic and administrative staff and on official reports and university documents.

I spent two to three hours in each School, meeting informally with staff and observing the work of the School. I followed up on initial interviews where appropriate but most often held informal discussions when people were available. Despite their very heavy workloads, staff members were very willing to entertain my questions; however, they were also often unavailable and so I had plenty of time to observe the workings of the various schools. As with the senior staff, I based my questions on a semi-structured interview guide which I provided ahead of time and then introduced clarifying and extending questions as appropriate. I took notes throughout and used the informal conversations to provide feedback, clarify and if necessary re-ask questions to ensure I was reporting their views correctly.

THE SCHOOLS

Each of the eight schools has a specific focus and has identified a likely clientele. These range from the School of Continuing Education (SCE) which has targeted the urban unemployed to the School of

Agricultural Sciences (SAS) which places its major emphasis on rural farmers. In contrast, the School of Education (SOE) restricts its programs to employed teachers while the School of Humanities and Social Sciences (HSS) encourages students who have passed secondary school examinations at the 12th Standard.

The School of Humanities and Social Sciences offers a Diploma in Journalism but is mainly involved in offering a Bachelor of Arts, and of Library and Information Science as well as a M. A., M. Phil. and M. Library and Information Science as well as a PhD program. The School of Commerce and Management (SCM) similarly is focused on offering B. Com, M. Com, MBA, M. Phil., and PhD programs.

The Schools of Continuing Education, Agricultural Sciences, Computer Sciences and Science and Technology have focused on the development of laddered programs to provide opportunities across a wide range of abilities and credentials. The SCE which offers 35 different certificate and diploma programs works closely with industrial partners while the SAS works with farmer groups as well as organizations interested in the promotion of agriculture. The School of Science and Technology (SST) has close links with engineering firms and offers a range of programs from short-term diploma and certificates to undergraduate and graduate degree programs in Electronics and Mechanical Engineering. Similarly, the School of Computer Sciences (SCS) offers 13 different programs, mostly diploma and certificate programs requiring a 9th, 10th or 12th Standard pass (grades 9 to 12). In this way, the schools fill skill gaps and enhance the employability of the minimally skilled workforce. Similarly, the new School of Health Sciences programs are designed to initially fill shortages for healthcare workers.

All schools are involved in multimedia development of their programs and some have taken substantial steps to implement aspects of web-based programming. Some Schools have not gone beyond development of a webpage while others have included self-tests, discussion forums and online counselling.

At the time I undertook the study, the School of Science and Technology was the one most interested in developing online applications. The School of Agricultural Sciences had not gone beyond the development of a web page for advertising purposes and the School of Education was trying to accommodate to the wishes of the State government concerning teachers' knowledge of ICT, their preference for face-to-face workshops and the lack of a solid supporting infrastructure. In the remainder of the chapter, I focus on these three schools.

SCHOOL OF EDUCATION

The School of Education (SOE) offers bachelor and master degrees in education and various in-service diplomas and certificates for practicing teachers in schools and higher education institutions. The School has a quota of 2000 new student entrants per year and a cumulative enrollment of over 10, 000 students.

MISSION

The mission of the school is "to develop high-quality academic programs directed towards capacity building and empowerment of all the key functionaries of the formal and non-formal systems of education with a view to increasing the efficiency and effectiveness of these persons in their respective roles" (SOE, 2002). The statement was developed in cooperation with the faculty of the school.

From this statement more specific objectives were identified:

1. To develop academic and para-academic human resources in the formal and non-formal education system in Maharashtra through various quality programs.

2. To empower teacher educators/ administrators/ managers/researchers/ evaluators/facilitators/ learners for their professional development

3. To develop quality programs in keeping with the societal needs based on the information communicated by distance learners.

4. To train the trainers to implement the programs developed by the school in all study centres, in an effective and fruitful manner.

5. To develop a monitoring system to enhance the quality of "program delivery" with respect to all the programs developed by the school

6. To conduct continuous academic activities within the school for the professional development of the faculty members.

(SOE, 2002)

FIVE-YEAR PLANS

Four major activities were planned for the school in the Eighth five-year plan (1990-1995). These were strengthening the B.Ed program, completion of the Diploma in School Management and professional degree and diploma level programs already under development; development of linkages between regional centres, study centres and schools; and development of teacher in-service training programs. The following table (Table 7) indicates the progress made and the implementation of those not completed and carried on to the Ninth five-year plan. The Bachelor of Education was one of the first degrees offered at YCMOU and it was designed to cater to the employed rural teacher with limited two-year training. At the same time the School thought it important to develop a credential for school principals and a Master's program for those who already held a B. Ed. The Ninth five-year plan also set out a series of 11 activities which fell into three levels of priority as shown in Table 8.

Table 7

Progress of SOE in the Ninth Five-Year Plan

Activities planned for the Eighth Plan	Review of the Activity	Implementation of the Ninth Plan
a) Strengthening of B.Ed Program	Activity initiated but to be completed	Continued in the 9th plan
b) Diploma in School Management	Program Completed	Upgrading of the program
c) Master of Education	Program Completed	Strengthening of the program
d) Early Child Care Education	Not Completed	To be undertaken

Source: YCMOU, 1997, p. 56.

Although the activities were prioritized in the Ninth Plan most were achieved by the end of the plan in 2002.

During this period, a number of other initiatives were also successfully concluded. First, the school revised its procedures for examinations. Previously the examiner selected questions from prior question papers; at times, these questions were considered to be irrelevant to the present curriculum. In order to make the examinations relevant to the students, a series of workshops and seminars were held to develop question banks. The school decided unanimously to use only higher-level questions based on experiences.

The School was also successful in implementing its website in 2003 and in developing the software for the discussion forum. Because the staff members preferred to use e-mail for interaction with students, the School recognized the need to orient staff, students and academic counsellors regarding the use of web-based programs. By 2003-2004, the School planned to implement online testing and online admissions. In the next five-year plan, this School will introduce direct counselling through teleconferencing facilities at the regional and study centres. In addition, the

Table 8

Projects/Activities Proposed for the Ninth Five-Year Plan (1997-2002)

Priority 1	*Priority 2*	*Priority 3*
1. Starting Early Child Care Education	6. Associate students of B.Ed program	9. Quality Assurance
2. Restructuring of B.Ed Program	7. Up gradation of DSM	10. Promotion of M.Ed program
3. Self-help group of B.Ed for In-service Teachers	8. Sharing of materials	11. Continuing Education
3. Linking of DRC with study centres and work places		
4. Research & Development		

Source: YCMOU, 2002 p. 63.

television channel *Mumbai Doordarshan* doubled the number of slots, providing two slots of one hour each in the morning as well as in the evening.

However, the Head of School is clear that unless the state and the central government provide better technological facilities to all the districts in Maharashtra, it is not feasible to initiate online education. He pointed out that the school's ethos is to cater to the masses and in place like Baramati there is no decent lodging facility available for faculty yet alone any network facilities.

In addition, he noted that in order to reach out to the masses and provide access, such programs should be cost beneficial to the students. This was mainly for considerations of equity since the program has targeted those teachers in rural districts who are more likely to be the have-nots. He explained,

> This digital divide can be bridged only if certain conditions are met. The programs need to be cost effective. Constant technological maintenance needs to be conducted at the study centres. The software available in the regional language has to be computer friendly and a uniform pattern of access is

required. People need to change their attitude from closed to open. There has to be an appropriate and adequate infrastructure and political influence and interference should be kept to a minimum in policy decisions.

The following table (Table 9) gives a consolidated picture of the program development activities planned by the School of Education for 2002-2007.

Table 9

Programs Priority-Wise Initiated by SOE

Priority	*Program*
1.	B.A (Early Childcare Development)
2.	Certificate Program in Pedagogy for ICT Instructors
3.	Certificate Program in ICT for School Teachers a) Basic b) Advanced
4.	Certificate in ICT Skills for Distance Learners
5.	Certificate program in Social Science Research a) Basic b) Advanced
6.	Transformation of Material (Upgrading of SIM)
7.	Upgrading of Dip in School Management
8.	Restructuring of B.Ed Material
9.	Restructuring of M.Ed. Material

Source: YCMOU, 2002, p. 68

PROGRAMS

The first Bachelor of Education program was launched in 1990. This is the first successful teacher education program offered by any Indian open university. Annamalai University, Chennai (India), offered a B.Ed through correspondence, but there were no contact sessions or training facilities available. Similarly Kota Open University started B.Ed program but soon discontinued it. The main objective of

YCMOU is to provide training for teachers in Maharashtra. While the medium of instruction is Marathi, the school gives students the option of writing their papers in English or Marathi. IGNOU now offers similar programs in Hindi and English.

In designing its programs, this school chose to cater specifically to the teachers in the rural areas. Initially they focused on teachers who were presently employed by their schools and had taught for at least 5 years. While they subsequently removed this requirement, they still focus on employed teachers. Almost 50% of their enrollments are primary school teachers who are Diploma in Education (D.Ed) trained. Their reasons for taking this program are for future promotions and a rise in salary. When these teachers began teaching, the B.Ed was not compulsory but now the situation is different and schools will not employ a teacher without a B.Ed degree.

The teacher education (B.Ed) program has four components: An orientation session, three compulsory contact sessions, a practicum, and distance education study based on print guides and supplementary media available at the study centres. The program begins with the orientation session which covers the major parts of the program and focuses on developing the teachers' philosophy of education. Initially, because they catered to large numbers, the orientation lasted 3 to 4 days and involved about 250 counsellors (4 or 5 from each school). The quota limitation on student numbers has reduced this to a shorter time.

The contact sessions are held at the study centres during the summer and winter breaks.

1) Winter Break- (Dec-Jan) 10-12 days
2) Summer Break (April-May-Jun) 22 days
3) Winter Break (Dec-Jan) 10-12 days.

The practicum is organized in the schools and involves basically demonstration lessons. Senior teachers of the school acting as supervisors observe the lessons and give feedback. I was told that supervision of students was a major issue because there is a shortage of supervisors. Students write their examinations the following summer. The total duration of the program is for two years as compared to one year at the conventional institutions.

YCMOU has a set pattern for program development that is followed by all their schools and set out in university policy. There are two committees involved: State Advisory Committees and Program Advisory Committees. The School Council initiates the program development process and makes a recommendation to the Planning Board. If approved, it is sent to the Academic Council and from there to the Board of Management.

For course development, the Program Advisory Committee selects academicians from the national and the state level who together decide on the structure of the program. It is then handed over to the course team, which is made up of writers, editors, an instructional designer and other members of the print team. They, in coordination with subject experts, design the course. The writer who identifies the content consults experts as to which media to use. A multimedia approach especially involving electronic media is considered. There is a high proportion of print as this is still considered the best medium to reach the students. Apart from print, the study centres are provided with audiocassettes, Compact Disks, and videocassettes.

STAFF

This School has the largest staff complement of any of the Schools with ten full-time and five part-time faculty members. Two are professors, two are associate professors and the rest are lecturers. As they cater to more than 100,000 students, their schedule is very busy. The School of Education staff members are designated particular regions and are always traveling to schools in these areas to provide in-service training, develop or test course materials and observe lessons. They visit the study centres and provide in-service training, workshops and seminars for the academic counsellors. While they are on campus they are busy planning and developing course materials, counselling and interacting with students and organizing in-house training. Perhaps because of their focus on the work at hand, this was one school, where the staff had not attended many conferences or workshops.

FINANCE

Funding was not a concern for the School of Education. The school programs were in demand and so the SOE was able to charge sufficient fees to be self-supporting. The head noted that in reality this school supports the university. In India, because students are prepared to pay high fees to obtain a teaching qualification, teacher education units usually generate funds for their institution. This is the case at YCMOU.

QUALITY ASSURANCE

Based on their objectives, the overall mandate of the university, and the requirements of accreditation agencies, the School of Education had implemented several quality enhancement strategies. In March, 2000, the following policy was accepted by the School Council:

> We, the School of Education of the YCMOU, commit ourselves to the development of an academic environment which will create professionally-inclined teachers who have both the experience and the motivation to continuously improve upon their knowledge, competencies, teaching methods, techniques and self-learning skills. We shall also strive to foster in our learner (teacher) a spirit of critical self-reflection so as to enable them to deal with their limitations constructively and through the adoption of a flexible learning style and a professional approach. We shall make use of the latest trends in communication and information technology so as to equip them the technological skills required to create a place for themselves in today's high-tech Information Age. (SOE, 2000)

The quality assurance of the B.Ed and M.Ed programs was of major concern to this school. The B.Ed and M.Ed programs offered by YCMOU are complete programs approved by the National Council of Teacher Education (NCTE) and on par with teacher education programs offered by conventional universities. In India, teacher education programs offered by universities need certification of approval from NCTE and UGC. Initially the program started with a student enrollment of 2500 a year. Later NCTE reduced the enrollment rate from 5000 to 1500. This was done in order to ensure quality education. NCTE asked the School of Education to take 32 teachers from each district instead of the 158 registered with YCMOU. When I visited the School, it was preparing to meet the requirements of the National Academic Accreditation Committee (NAAC) and was simultaneously trying for ISO 9001 certification.

Both the B.Ed and the M.Ed programs have received rich quality inputs from time to time. Committees of experts have been employed to develop additional support material to augment the existing instructional material offered for the M.Ed program. Consequently, additional print materials and approximately nine to ten audios and videos were developed.

In addition, the school has developed several feedback mechanisms. There is a self-instructional survey to obtain feedback from students, centre staff and counsellors. The school also gets feedback pertaining to language editing. They run pilot programs, and once they get feedback from students they discuss the programs, analyze the results, and develop supplementary material, as required. They have developed questionnaires for students to identify units that need additional material and to decide on other material that should be included. They also hold seminars on a regular basis that provide for reflective teaching and learning.

MEDIA

Besides introducing innovative teaching-learning techniques with the use of multimedia, the school imparts education through radio and television. Presently the school has its own website for students to know the staff and contact them. This website is in Marathi. The School of Education sees its first phase as print based, and its second phase as focused on multimedia, particularly audio and video. The third phase was to develop an interactive radio program that is broadcast once a month. The program is an hour's duration, where approximately 15 minutes are reserved for presentation, followed by a 15 minutes for questions from the listeners and the rest for discussion. Similarly, the school has an hour slot for a similar television program on *Mumbai Doordarshan*. These programs are of great advantage to the students especially for those living in the rural sector. In both the audio and video programs student teachers are helped to develop appropriate methods because they can get feedback to help develop their teaching skills.

The School has also undertaken various innovative projects in the form of development of training manuals, audios, videos, Compact Disks, and supplementary material both print and non-print. It is also piloting the use of computerization for the efficient administrative implementation of the programs in education.

ONLINE EDUCATION

One of the major concerns of the School involved the implementation of online education for teacher education students. The state government had encouraged the implementation of ICT in schools. YCMOU in its Tenth five-year plan had also indicated that this was the way of the future. The School therefore had to consider not only how to use online learning in their own program but how to impart ICT skills to their students.

Apart from these, the Distance Education Council (DEC) provided support to all programs that implemented ICT. This is considered to be the biggest priority area in today's academic situation. The school administrators saw this as a gigantic task.

While these pressures were propelling them towards implementation, there were also several issues that caused them to hesitate. One was the perception in society of this means of provision of teacher education. I was told that even a major institution like the National Council of Teacher Education (NCTE) that approves teacher education programs was still apprehensive about implementing this mode. While the Head of School agreed that web-based instruction was the best solution for the Indian educational system, he was concerned about the lack of a robust telecommunications infrastructure in terms of bandwidth and power. In his view, most of the study centres had no Internet connectivity and some even had inadequate power sources, especially in the rural schools. Schools did not have many computers. He explained that "Most of the people who donate computers give outdated ones so they are used as typewriters as there is less chance of upgrading these machines."

Another major issue was language; the Marathi script for computers was not readily available and what was available was not user friendly. As well, although the state language is Marathi, there are many regional dialects.

He was also concerned about lack of technical skills. Learners were not well versed in computer technology. His main concern regarding students focused on those who had no background even in typing and did not possess good literary skills. There was a tremendous need to develop students' computer literacy, which was not always evident to students themselves. Staff members' competencies were a further concern. Although the school staff had a website and some counsellors ran web-based forums for students in all courses, staff felt that they lacked the support for implementing online learning and needed staff training in ICT.

While these were important difficulties, the biggest barrier was that staff and administration were skeptical about the use of online education. Given their pressures of work they felt that any time taken to learn about ICTs was a great wastage of time. More fundamentally, they believed that "one cannot prepare teachers by distance. We need to stress on face to face for quality," and that they had "no time to try. We are not ready to take the risk, as the program is exhaustive." They believed in the importance of the contact sessions for developing reflective teaching and critical analysis. They thought that teachers needed to be trained in actual classroom settings, to acquire these skills, and that education through online may not be feasible especially in an Indian situation, when the main objective of this Open University was to provide access to education for all.

The School administration had thought seriously about these difficulties. They felt that to overcome the problem of teacher education through ICT, new approaches needed to be developed since distance existed even in the conventional system to a certain extent. In any redesign, the paradigm of teacher training needed to be considered, especially the philosophical approach. Their present process stressed teachers' reflective practice and critical analysis of their work and the faculty wanted to retain this in any redesign.

We also had several discussions about the way the concept of online learning had been confined to making online admission transparent. Because of their use of multimedia, they thought that online education should be an integrated approach with Compact Disks, or computers connected with television. Some thought that anything related to computers and Internet was online education.

The School of Education had begun with a website that used Internet Relay Chat (IRC) technology to run course forums. There were essentially question and answer sequences. Two experts, one for academic and the other for administrative matters, were appointed for each course to respond to student's questions. Questions were sent via the Internet, and it usually took a week for the counsellor to reply. That the school, despite its enrollment, was able to run course forums with only two people supports the concerns about the non-availability of Internet connectivity.

One strategy mentioned was "to tap resources from outside." This, they thought, would help overcome their lack of time, avoid wasting time and money on trial and error, and would support the move to partnerships and networking. They had made two or three attempts to do this, but the Head noted that they needed more time since so far their main concern was pedagogical. They were not happy with the outside resources. He advised a slow progress of adaptation, through following countries that were more advanced in the development of ICT. "We can learn from their mistakes and take their technical experts. In order to cope with technology we need to adopt a slow process."

CONCLUSION

Looking at the three phases of development at YCMOU, SOE has made remarkable progress with regard to imparting training, timely contact sessions and progressive in-service modules for teachers. In 1990, this school started with two and now offers nine programs. Similarly, in 1990, this school with a cumulative enrollment of 100,000 students had a total student enrollment of 226 and now operates under a quota of 2000 each year. The school has maintained its quality, enhancing it periodically after receiving feed back from students, counsellors and study centre coordinators. The School has maintained excellent relations both in-house and externally with study centres and work centres and external experts. The school's programs are based on a philosophy of reflective practice and critical analysis of experience. The programs follow a similar design to that used in conventional universities and are designed as a sequence. This is less flexible and is different from the modular approach of other Schools.

Unlike other Schools, the School of Education has restricted access to those who are presently employed as teachers in schools and higher education. The school has been successful in meeting its costs and its contribution is important to the overall university budget. In terms of online education, the school is unprepared to make major moves in this area until there is a more effective infrastructure, and staff and student training. In some ways, the school has been very successful because it has been similar to conventional programs. Neither the course materials nor the approaches are different and the staffs do little personal professional development to learn about new ideas. The staff meets for lunch every day and this is one time when informal professional development might occur.

SCHOOL OF AGRICULTURAL SCIENCES

The School of Agricultural Sciences (SAS) was established in 1989 to provide access for farmers and farmwomen to Life Long Learning. It is the only one of its kind in the field of distance education in Maharashtra that caters specifically to the farming population of the state and it has made unique contributions in this field. The school has over 50,000 learners (2002), and its target is to reach out to 500,000 learners during the years to come to achieve the status of a mass educational institution for Maharashtra.

MISSION

The mission of the school is to provide professional, vocational and technical education in the field of Agriculture and Rural Development, through open and distance learning systems with extensive use of information communication technology, to rural and tribal peoples and the disadvantaged mass of the population.

OBJECTIVES

The SAS has identified the following objectives as the means to fulfill this mission:

1) To promote open and distance learning in agricultural and rural development.
2) To plan and operate self-employable vocational programs for the rural areas in general and farmers in particular.
3) To provide technical manpower to suit the requirements of the state government in nine areas of agriculture, horticulture, rural development, agri-business management, agri-informatics, agricultural communication and agricultural development.

FIVE-YEAR PLANS

In the Ninth plan the projects were planned in three phases of lessening priority. The proposed projects for the School of Agricultural Sciences are presented in the Table 10

Table: 10

Programs/Projects Proposed in the Ninth Five-Year Plan 1997-2002

Priority 1	Priority 2
i) PG Dip in Agro Biotechnology	i) Documentation of Indigenous Agricultural technology and Dissemination through Muktai Krishni Vani Bulletin.
ii) PG Diploma in Agricultural Marketing	ii) Agro biotechnology
iii) Video Programs for B HSc	iii) M.Sc (Agricultural Marketing
iv) M.Sc (Agri Communication)	
v) Strengthening of CHA (Centre for High-tech Agriculture)	
vi) Strengthening of CIA (Centre for Indigenous Agriculture)	
vii) Strengthening of CRD (Centre for Rural Development)	
viii) Strengthening of CAC (Centre for Agricultural Communication)	

Source YCMOU, 2002, p. 82

Program development commenced in June 1998 and these were included in the Eighth plan. The School developed a more extensive list of programs for the Ninth plan but could not implement all programs proposed. The rest were completed by 2002-2003. As shown in Table 11, student numbers have also grown with the increase in programs from 4547 in 1995 to 6878 new entrants in 2003. The total number of registrants was 46,331. In 1993-94, the dropout rate was 70% and now it is reversed; the success rate is 60% and the dropout rate is 40%.

Table 11

Year wise Enrollment of Students in Agricultural Sciences

Program	Year					
	'90-95	'96-00	2001	2002	2003	Total
1. Cropwise program	1126	---	--		--	1126
2. Certificate in Gardening	---	974	312	449	556	2291
3. Foundation in agricultural Sc	2108	9016	1543	1873	2293	1833
4. Dip in Fruit Production	1089	6275	1142	1256	1299	11,061
5. Dip in Vegetable Prod.	224	3947	757	759	903	6590
6. Dip in Floriculture & Landscaping	----	2886	683	545	697	4811
7. Dip in Agri-Bus management	--	----	795	774	751	2320
8. B.Sc (Agriculture/ Horticulture)	---	657	---	220	283	1160
9. M.Sc (Agr. Communication/ Extension/ Development) ---		02	03	07	60	72
10. PhD (Agri.Communication /Extension/ Development) ---	01	01	01		34	37
Total Enrollment	4547	23,758	5236	5884	6876	46,331

Source: (Tenth five-year plan, 2002, p. 43)

PROGRAMS

All the programs were offered in Marathi, but students could write their papers in Marathi or English. The course materials were available in Marathi. The programs in the SAS have been designed with three premises in mind: The programs permit and encourage vertical mobility, they involve demonstrations where possible, and they involve partnerships where appropriate.

Vertical Mobility

In 1990 the School began by offering a two-year certificate program in grape production. At that time there was only one staff member and he had to play all roles--head, teacher, coordinator, course developer - and implement the program. He found that the course materials he had developed for this program did not work well as the farmers were more experienced and knowledgeable than he expected, and the material was not relevant. He was happy that he could learn from his students and based on their feedback he collected and consolidated new materials and developed new coursework that he sent to them. Hence he developed the curriculum based on the farmers' input and experiences.

In 1992, he started more programs for students who were completing certificate and wanted higher programs. It was at that time the government realized the need for yellow collar jobs, i.e., more trained skilled workers at the middle level so they can work on site. YCMOU began offering three diploma programs jointly affiliated with the Government of Maharashtra and the Government of India: in fruit production, vegetable production, and in floriculture and landscape gardening. By 1997, the demand for graduate programs was on the rise, hence the Open University began to offer a graduate program. Substantially, a higher-level diploma program –a Diploma in Agri-Business Management was offered. The diplomas as well as the graduate program were well balanced such that what was covered in one was not repeated in the other. In 2003, this school began offering a Masters and Ph.D. Program in Agriculture Communication.

Not only are the programs non-repetitive, but they are designed so that it is possible for a student to proceed from the basic certificate to a graduate program. The vertical mobility of the programs is shown in Table 12

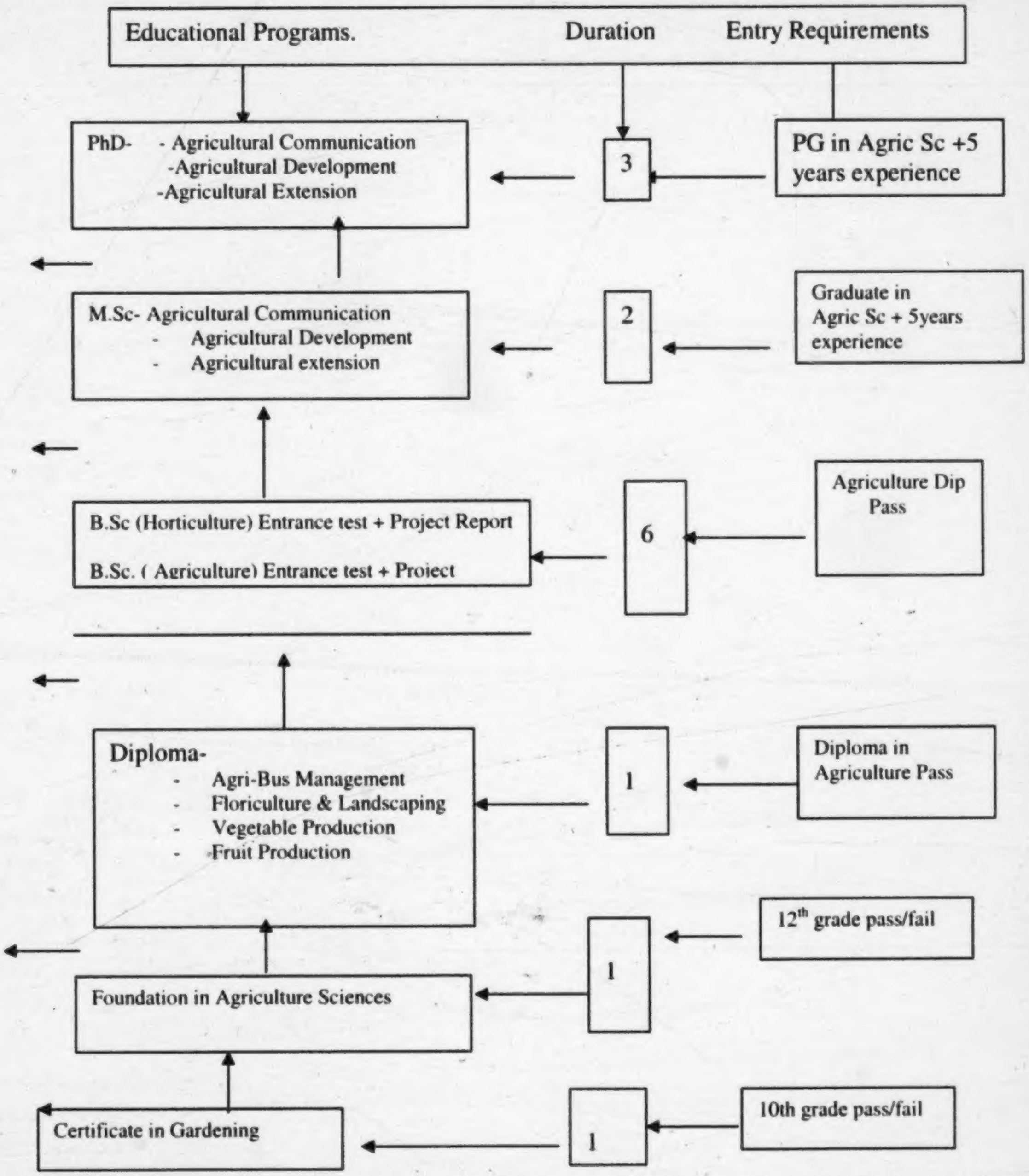
Educational Programs.
Duration
Entry Requirements
PhD- - Agricultural Communication
-Agricultural Development
-Agricultural Extension
3
PG in Agric Sc +5 years experience
M.Sc- Agricultural Communication
- Agricultural Development
- Agricultural extension
2
Graduate in Agric Sc + 5years experience
B.Sc (Horticulture) Entrance test + Project Report
B.Sc. (Agriculture) Entrance test + Project
6
Agriculture Dip Pass
Diploma-
- Agri-Bus Management
- Floriculture & Landscaping
- Vegetable Production
- Fruit Production
1
Diploma in Agriculture Pass
12th grade pass/fail
1
Foundation in Agriculture Sciences
Certificate in Gardening
1
10th grade pass/fail

Figure 4 Vertical Mobility of the Agricultural Programs

Source: YCMOU, SAS Brochure, p.5

The system at this school is flexible with multiple entry and multiple exit points. Especially in a rural setting, this model has worked well, as there was greater disparity among the academic backgrounds of the students. This is a strong concern for the school. The Head of School noted that 70 % of people in agriculture receive only 30 % of the education and 30% of people in urban areas received 70% of the education. He said that, according to Maharashtra Statistics, of a total of 1,000,000 students who appear for grade ten examinations, only 500,000 pass, and in twelfth grade 700,000 appear and 300,000 fail. In all about 800,000 students fail plus there are students who pass with minimum percentages, and hence are unable to gain entry in higher education. These are the target audience for this school. He attributed the failure of so many students to socio-economic cultural problems. To work on this, his School has developed a vertical mobility model, where a tenth grade-failed student, could if he is capable, go on to complete his PhD.

Demonstrations

The concept of "seeing is believing" is the guiding force in establishing and demonstrating various farm technologies that motivate farmers to accept and adopt new agricultural production technologies. About 40 acres of the university farm is utilized for horticultural plantation and 35 acres for agro-forestry, planted in 1995-96, and 5 acres for TPUs (Training cum Production Unit).

These Training cum Production Units are:

1.Horticulture nursery
2.Vermicompost production
3.Irrigation and automation system
4.Mushroom production
5.Micro-propagation system (Poly tunnel, Poly house & Shading house)
6.Seed production

In addition, the SAS also uses the students' own farms as demonstration sites.

Partnerships

The School of Agricultural Sciences has been very successful in meeting YCMOU's objective of working with other organizations to bring the university to the people and to decentralize operations. Among its partners are *Krishi Vigyan Kendra* (KVK), *Krishi Prayog Parivar* (KPP), a joint venture with KPP and the National Association of Banking and Rural Development (NABARD), and a multi-partnership with B R Ambedkar Open University (BRAOU), YCMOU and the International Crop Research Institute for Semi-Agriculture Tropics (ICRISAT) in the creation of a virtual university for Agriculture.

According to Prof. Ram Takwale the founding Vice-Chancellor, extension and continuing education must be promoted as a third objective, equal to research and teaching, for socio-economic development. The idea for establishing the *Krishi Vigyan Kendra* (KVK) was initiated in 1992 by Dr Gunjal, the Director of the School of Agricultural Sciences. The proposal was submitted in 1993 and the Indian Council of Agricultural Research (ICAR) established *Krishi Vigyan Kendra* at YCMOU, Nashik in 1994. It is an innovative farm science institution, providing training and information services to the farmers and agri-business managers. The *Krishi Vigyan Kendra* acts as a "Vocational Training Centre" working at the grass-root level and imparting needs-based training and skills in the field of agriculture and rural development. The broad objectives of *Krishi Vigyan Kendra* are:

1. To act as a Nodal Training centre for transfer of agricultural technologies to the farmers and farmwomen.
2. To organize various needs -based vocational and professional training programs for the practicing farmers, rural youths and farm laborers to develop skills in the areas of commercial crop production, horticulture, plant protections, etc.
3. To serve as an informatics centre for the dissemination of technological know-how in the field of agriculture and rural development.

The university allocated 80 acres of undulating and eroded wasteland to KVK to establish a model farm. It has recovered Rs 700,000 for farm development and maintenance during the last 10 years. Under the leadership of Dr. Gunjal, the team of

KVK scientists and support staff physically worked on the farm for six years and the wasteland is converted to best land by 2002 early 2003.

Another partnership has been with the *Krishi Prayog Parivar*. These are self-help groups of farmers set up in relation to each of the study centres. Each self-help group has approximately 30 to 32 farmers (both literate and illiterates) so in all there are approximately 15,000 farmers involved. They seek each other's help on their farms.

Subsequently, a joint venture has been set up between the National Association of Banking and Rural Development (NABARD), the *Prayog Parivar* and YCMOU. YCMOU provides information and technical know-how to *Prayog Parivar* and NABARD gives them loans to procure necessary equipment. In this agreement, all benefit. NABARD benefits because there is a reduction in defaulters, farmers get free information and a loan from NABARD, YCMOU gets more students for their programs through *Prayog Parivar*. The Head of School referred to it as a Symbiotic Beneficial Model. With funding from the Distance Education Council (DEC), the Prayog Parivar who are linked with a local bank are provided access to computers by NABARD. Once a week they are allowed to use the computers and play the Compact Disks at that branch but these arrangements are not totally formalized.

The latest partnership involves the development of a virtual university in collaboration with B.R.Ambedkar Open University (BRAOU) and Sri Lanka OU, along with the International Crop Research Institute for Semi-Agriculture Tropics (ICRISAR), Hyderabad, in addition to the Food and Agriculture Organization (FAO), the Commonwealth of Learning (COL) and IGNOU.

STAFF

In 1990 there were three full time staff working with 81 students. In 2003 there are still the three now working with 6000 students. The director as Head is in charge of development and coordination of the School and its programs with the school administrator, researchers, educationists and coordinators of programs. Another senior faculty handles coordination of the work of the school and the centres.

In all, there are 13 programs running through 52 study centres. The third faculty member is on a contract basis and he assists both the head and assistant head. In the study centres there are 300 teacher counsellors imparting education to these 6000 students, with a ratio of one teacher to 20 students.

FUNDING

Because this School caters specifically to students from rural areas with lower incomes, it cannot charge the same fees as urban students might be able to afford. Fees are calculated on the basis of numbers, operational costs, and a 20 percent profit. The School cannot increase fees because students are not willing to pay the same amount for an agricultural program that they will pay for an education degree. The catch is that if more students enroll, more fees are sought. It is hoped that virtual education might bring about a change.

QUALITY

The School of Agricultural Sciences has adopted the following strategies with regard to quality assurance: The major emphasis is on the coordination of the work of the school and the study centres. There are eight regional centres and 52 study centres.

The School's responsibilities including networking with their study centres throughout the state, monitoring and evaluation the academic programs offered, development of core and supplementary learning materials, and training of the study heads, coordinators and academic counsellors. The major tasks assigned to the School were the planning of the contact sessions and the approval of the teacher-counsellors.

The focus of the regional centres was mainly administrative. The regional centre staff members were responsible for visiting the study centres, solving personnel issues, giving orientations to centre staff and counsellors, checking student registrations and forwarding money and registrations to headquarters. They also sent study materials to registered students.

The study centres looked after the academic aspects of setting up labs, obtaining classrooms and hiring teachers. The staff coordinated activities, sent out correspondence between the School and the teachers, approved students, hired teachers and established continuity based on feedback from students.

The SAS monitored the quality of the centres. Centres were graded A, B or C. If they maintained or improved their grades, then they were retained; otherwise their contract was terminated. An A grade meant that there was an excellent infrastructure, with qualified teachers and the centre operated efficiently with good student performance. Centres allocated A were allowed to continue for another 5 years. Centres given a B grade were allowed to continue for three years. Their infrastructure was judged to be quite good and they had good teacher counsellors. Centres receiving a C grade were allowed one year to improve. The School assessed some slackness in infrastructure and the need to obtain quality teachers but the centre staff were seen as energetic and hopeful of continuing to improve.

To aid in enhancing the quality of the centres and the School's services to students, the School offered training to centre staff and to teacher counsellors. Once a year all the study centre heads and coordinators were provided training on administration issues, operational issues, rules and regulations of admission. For teacher counsellors, the in-service included discussions of distance education, the difference between teaching (lecturing) and counselling (interactive) and common problems that teacher counsellors encountered.

The school had several frustrations with the centres. One administrator commented,

> Not all the coordinators running the centres are serious. People running centres are not serious in running centres; only 10% of the study centres are serious in running, the rest are interested in collecting money from students, so registrations of the students are very few, due to this.

The School advertises its programs but depends on the regional and local centres to advertise locally and register students. If the centres depend on walk-in trade, then the School enrollment does not expand significantly since many potential registrants may be unaware of the services YCMOU provides. They also had difficulty in obtaining and retaining quality teachers. As one interviewee noted, "One cannot get teachers with same calibre; there is need to reorient them many times." However, the School also recognized that student centres lacked equipment; while their intentions were positive they needed financial help. The faculty believed that online education would bring changes to the system but that until then the old method of instruction still prevailed. As the Head noted, "From regular to distance education to virtual, one can see a transition."

MEDIA

Normally the School uses a variety of teaching materials; its multimedia packages include textbooks, workbook, audiocassette, videocassettes and a few Compact Disks. The Head acknowledged that all of these were not fully utilized, as audio and video do not reach on time, and are not up to the mark as far as quality is concerned. Sometimes they are not shown in the study centres, because of the lack of appropriate equipment. There is more progress as far as Compact Disks are concerned. Almost 96 Compact Disks have been made to date and more are in progress. Students and teachers depend mainly on the textbook and workbook.

ONLINE EDUCATION

Online education was not being considered by the SAS at that moment because while it may be a viable alternative for mass education, there was a lack of a sufficient and appropriate infrastructure in the rural areas served by the School. The roads were poor, the power was intermittent and the telephone did not work regularly. Also, even though only awareness and not expertise is necessary, students working in rural areas did not have access to the Internet. Nevertheless, the School had developed its own webpage.

CONCLUSION

This School has focused on development of a wide range of programs for a very diverse clientele, an emphasis on partnerships to extend its impact and increase services, and on monitoring the work of the centres and holding meetings with farmers to obtain feedback and maintain quality. The School's partnerships have been very beneficial. Responsiveness is the key word. This is essential with this school since the issues related to agricultural studies cannot be postponed. One academic explained;

> as the farmers work in the farm, if they need some solution or are not clear as to what to do next, they prefer to visit the centre or meet with an academic counsellor to find solution for the same. They are very enthusiastic to learn.

There is an immediate requirement of additional core staff at the school, since it has started its Masters and Ph.D. programs.

SCHOOL OF SCIENCE AND TECHNOLOGY

The School of Science and Technology (SST) offers 16 different academic programs and 32 different courses (subjects), consisting of a total 172 credit points. Every year, about 5000 new students are registered for their Electronics Engineering Diploma Programs (EEDP), while the total number of registered students on the roll is about 8000. The school is involved with the eight regional centres and runs 40 study centres which provide various academic and student support services to these students and are distributed all over the state of Maharashtra. About 200 counsellors impart academic instruction in English, Hindi, and Marathi. The initial 150 students were enrolled in the Diploma in General Electronics. In the second year enrollment dropped to 100 students and in the third year, no students enrolled. In the following year (1996), 150 students enrolled, and doubled the following year to 300. In due course more programs were added and the enrollment was approximately 5000 students in 2001. The School of Science and Technology has begun implementing online programs.

MISSION

The mandate of the School of Science and Technology as described on the YCMOU website is

> to offer educational services, relevant with the philosophy and paradigm of distance and open education, in the sciences and technology disciplines, using such operational and academic principles as optimize academic quality, show relevance to the present needs of industry, society and students, and are time quality and cost-effective for students and the university. (YCMOU website, 2004)

OBJECTIVES

The school has sought to enhance its operation and achieve its mission through meeting a set of objectives which are also posted on the website. The broader objectives involved the development of "a well documented quality policy," and of "programs which are relevant to the present needs of industry, society and students". These programs were to be "modular in curriculum design with multiple entry and multiple exit points" and with "simple and proactive implementation strategies."

Other objectives related directly to curriculum design: One dealt with better preparation of students to eliminate "root cause of error, rather than correction afterwards," while others dealt with the preparation of "virtual classroom modules, an online self-test centre, and a data base of model question papers and previous end exam question papers."

The School had several objectives related to enhancing student services. These were to provide an "online counseling centre and online student services, which included access to a "program calendar on the website, online free access to all EEDP Students to the prospectus, curriculum and study centre manual, and a study plan and study guide. To help streamline access the School planned to put "admission lists with course exemption and credit transfer details", and "end-exam results" on their website.

FIVE-YEAR PLANS

In the Eighth five-year plan period (1992-1997), the school developed and implemented the academic programs in Table 13:

Table: 13

Programs Initiated in the Eighth Five-Year Plan- 1992-1997

Program	*Duration (Years)*
Diploma in Applied Electronics (DAE)	1.5
Certificate in Analog Electronics (CAE)	1
Certificate in Digital Electronics (CAE)	1
Certificate in Instrumentation Electronics (CAE)	1
Certificate in Communication Electronics (CAE)	1
Diploma in General Electronics (DGE)	3

Source: YCMOU, 2002, p. 23

At the same time, the school put in place several administrative efficiencies: It standardized implementation for all academic programs, developed a computerized planning and co-ordination system and developed a system of academic activity planning for all academic programs. In terms of promotion and marketing its programs, the school decided to make its prospectus the basic tool for publicity and advertisement and developed a program promotion strategy for each program. Given the high number of needy students who applied, the school developed a partial bursary scheme where some materials are shipped to students for a minimal down payment.

The school was also concerned to ensure the quality of its materials and developed a system for noting difficulties with the course materials through prompt and effective counsellor and student feedback. The faculty also developed experiment kits and audio-visual materials for students. They reviewed the design layout of their texts and moved to use of icons and a new layout that brought savings of approximately 40 percent on the production costs.

During the Ninth plan (1997-2002), the school identified two areas for development: vertical mobility for diploma holders working in industry and for Maharashtra Certificate in Vocational Course(MCVC) students Higher Secondary Certificate (HSC) level; and one area for curriculum revision: Revision of the curricula of Diploma in Applied Electronics(DAE) and Diploma in General Electronics (DGE) so as to incorporate innovations considering the present needs of society and students. The vertical mobility was addressed through development of two diploma sequences. One was a one-year technology diploma program to follow the Diploma in General Electronics (DGE), with five optional specializations: Computer Technology, Communication Engineering, Instrumentation Engineering, Industrial Electronics and Bio-Medical Instrumentation. The other was an 18-month diploma program for post-MCVC students with specializations in Medical Technology, Automobile Engineering, Electrical Maintenance, Plastics Technology, Audio-video Technology, and Food Technology.

The Tenth plan focused on enhancement and improvement of the 16 programs now offered, listed in Table 14. Since these 16 programs are based on a semester pattern, a common delivery mechanism is planned. During each semester, three courses for a total 16 credit points will be offered. These three courses are further divided in two theory courses each of six credit points and one practical or project work course worth four credit points. In general, at least one-week of study time will be provided for each credit point of course content. All prescribed self-instructional textbooks and workbooks will be supplied as core learning material. Audio-visual material in the form of virtual classroom modules on Compact Disks will be supplementary learning material and only available for use at study centres. The materials will also be available for access via the Internet. This material will be made available in a phased manner for only few selected difficult topics in each course.

Students are expected to study independently using this core learning material. They are required to perform all prescribed practical work at the study centre laboratory under the supervision and guidance of a counsellor. Limited face to face counseling help for all three courses a semester is provided to each student at each study centre for a total of 192 hours during 16 weeks. Hence, students can visit the study centre for two hours daily for 6 days in a week. Usually, counselling sessions are arranged either in the morning or evening, for the convenience of students.

Table 14

Programs Added During The Tenth Five-Year Plan

Program	Entry Requirements	Duration	Medium
PhD (Communication)	PG/Spl experience	24 Month	Marathi/English
M.Phil.	Post Graduation (PG)	18 month	Marathi/English
MSc	Master Degree/ Bachelors +5 years experience	18 months	Marathi/English
Dip in Commn Engg, & Instrumentation, Industrial & Computer Technology	10th pass	3 years & 6 months	English
Certificate in Computer Fundamentals, PCB Drafting, basic electronics,Digital Electronics Programming in C, Computer Maintenance & Up gradation & TV Repair & Maintenance	10th pass	6 months/1 semester	English
Diploma in Applied Electronics,	10th pass	18 months /3 semester	English
Dip in General Electronics	10th pass	30 months/ 5 semester	English

Source: YCMOU, 2002, p.35

For each theory course, a total of 64 counseling sessions, each of one hour duration will be provided four days a week. For each practical course, a total of 32 counseling sessions, each of two hour duration, will be provided two days a week. For each course, online counseling is provided on the web from an academic expert.

Students can assess their own learning effectiveness by taking self-tests on any unit or virtual classroom module. This immediate online formative feedback will be a great help for all the students learning in the open and distance education system. These self-tests will be made available for all courses in a phased manner. An end -of -term examination will be conducted for all courses in each semester.

A number of student support services are planned to be available at each study centre. For prospective students, pre-admission counseling through the EEDP Student Service Centre will be available on the Internet as well as being available in person. Online access will provide students with detailed program prospectus information. This will have information on the student's curriculum with detailed academic information and a syllabus for each course. Virtual classroom modules on selected difficult topics in each course will be available for students. Counsellors will be able to access model question papers with model answers and marking scheme for each course. A study centre manual will include detailed information about program implementation for the study centre staff.

In the near future, there is a possibility of providing other services: An online admission facility for students to ensure immediate student registration; online access to a complete program calendar on the Internet; online access to excellent multimedia learning material on the Internet for more enjoyable and faster learning providing more value for less cost; and online formative feedback using an online self-test centre on the Internet.

PROGRAM

The School of Science and Technology offers certificate and diploma programs and has only in 2003 started a Bachelor of Engineering degree.. The School offers six specialist diplomas, two generalist diplomas and four Bachelor of Technical Education qualifications. The Electronic Engineering diploma has 21 courses. Unlike a diploma from a conventional institution, it includes a wider understanding of technology more emphasis on applications and less emphasis on mathematics. This design was based on a market analysis that showed that 90 percent of the job opportunities required applications experts.

The SST believes that with the proper selection and mix of student instructional material (SIM) and Internet based e-learning methodology, their programs can offer high quality technical or vocational education with required practical skills, while maintaining minimum cost, to prospective, employed students. As the section on the Tenth plan indicated they are in the process of moving their programs to this format. They often access learning materials from other institutions. The Head of School explained their reasons:

> Many good quality self-instructional textbooks are readily available from reputed publishers, at low cost. Normally, such textbooks are adopted for all programs on offer to cut down development costs and time. Similarly, there are many good quality video programs from UGC, IGNOU, NCERT, etc., that we want to adopt for all programs on offer.

One staff member provided his assessment of their program development:

> With the implementation of technology we are highly motivated to do two things: first ours is the only school in this university and probably in India to reach students completely online. Second, our discussion forums are a great eye-opener and as it is open to all, we do get to clarify our issues. I personally feel we have done tremendous work. If we are provided with the proper training, we could do much better.

STAFF

There are three faculties at the school. The Head described the school as "a small school with three staff, but we coordinate well. I send my staff for professional development and we look for comments and feedback." Due to the insistence of the National Council of Technical Education (NCTE), they will be adding additional staff in response to enrollment.

FINANCES

Student fees are set at a lower standard than other engineering programs and in particular for the diploma and certificate programs. Students in financial difficulty need only pay a nominal fee to access materials or they can access them directly through the study centres.

QUALITY ASSURANCE

The School uses a Total Quality Management approach and has applied TQM principles to all aspects of the academic program. For students, they aim for timely and cost effective program implementation, course exemptions and bursaries, smaller student cohorts in order to provide personalized academic services and provision of additional academic support. For the study centres, the goals are various program promotion incentives, timely payment of honoraria and clear, frequent and effective communication. Study centres have been carefully chosen to ensure they will uphold quality. The school believes that direct contact with the study centres is important in maintaining and monitoring quality. The Head of School commented, "I prefer to have direct contact with the study centres. Having too many intermediaries creates confusion. I look for quality. My study materials are carefully chosen. It takes effort to select counsellors."

MEDIA

Media chosen for the courses are classified as core and supplementary and selected based on availability, accessibility, acceptability and economy. Core media are self-instructional printed materials, and study centre laboratories. Much of the media is purchased from other educational vendors. The school has focused on the development of Compact Disks. These supplementary media are virtual classroom modules (VCM) on Compact Disks: Counseling help at study centres is enhanced and enriched with the use of these Compact Discs based pre-recorded virtual classroom modules from master trainers. The modules are also provided on the

Internet. The school has been developing an Online Counseling Centre, where a student can clear doubts or solve difficulties with help from an online teacher and interact with other students. Feedback about learning effectiveness with online self-test centre is also in the planning stages.

ONLINE EDUCATION

The Head of the School is very interested in online education. He taught himself how to work online and believes it is the way of the future. As part of the Tenth five-year plan, his school has developed a strategy for the offering of student services online at the study centres. As mentioned earlier these include counselling, access to resources (VCMs) and self-test systems.

CONCLUSION

Of the eight schools that comprise YCMOU, I spoke with all the Heads of Schools and a number of faculty and interviewed three School Heads and their staff in depth. These three schools were those most willing to give me the time. In terms of online services, one was very involved in putting resources online, one was willing but was concerned about pedagogical and infrastructure issues while the third had chosen to use the website only to advertise their programs. Together they give an idea of the range of orientations to online learning present at YCMOU.

All Schools work independently in developing programs and interacting with their study centres but their work is coordinated through the university's five-year plans. These build on each other so that they provide a clear sense of the direction of the university. For example, Agriculture has been particularly concerned with vertical mobility while SST has focused on meeting the needs of industry and developing niche programs that will bring employability. In contrast, SOE has limited its prospective students to those already employed and has built its programs around providing bachelor, master and in-service qualifications.

The School of Science and Technology is the one most interested in developing online education and will likely be the flagship for the other schools. Its plans are to develop student services which students can access at study centres. This is also seen as a way to enhance the quality of the service.

The School of Agricultural Sciences has placed its focus on partnerships and through them has been able to extend access to its courses. It is cooperating with B.R.Ambedkar Open University (BRAOU) and Andhra Pradesh Open University in helping extend its services. Because its focus is on rural farmers, the school is concerned at the lack of infrastructure available for access to online education. The school sees online education as a means to fulfill its mandate of responding to the disadvantaged populations of the state.

The School of Education is particularly aware of online education since the state has required teachers to be knowledgeable about ICTs. However, since its main service population is rural teachers, the school is not prepared to introduce online education until a more robust infrastructure is available.

In each case, school staffs talked about working closely with the regional and study centres to implement their programs. These centres are the focus of the next chapter.

Chapter 7

ADMINISTRATIVE AND PEDAGOGICAL DECISION-MAKING: THE ROLE OF THE STUDY CENTRES

Students at YCMOU access their programs and register for courses at regional and study centres. The work of these centres is therefore integral to the effective functioning of the university. In this chapter, I have focused on the work of these centres and how their administrative functioning relates to the work of the Schools at the YCMOU centre at Nashik. I was able to visit four regional centres and six local study centres where I had the opportunity to talk with staff and students about their involvement and the issues and concerns they had. In interviewing students I used a variety of techniques. Where I was able to meet with small number of students I did some individual interviews, and some group interviews and where I had access to larger numbers of students from different programs I used my original student survey. Some subsequently emailed and phoned me to talk about their own concerns. This chapter is based on that data and on documents from YCMOU.

The chapter provides an overview of the responsibilities of the regional centres, districts and study centres and some sense of their actual practices. From the data, I identified six issues identified by regional and study centre staff and by students. The issues pertain to coordination, personnel, leadership, motivation, accountability and infrastructure. In all, these issues reflect concerns and issues involved in implementing open and distance education by YCMOU.

THE STUDY CENTRE SYSTEM

Program delivery at YCMOU is through a three-tier (now four-tier) system linked with the University headquarters at Nashik. The university schools liaise with regional centres and they in turn are responsible for the study centres in their region.

Some study centres are linked with smaller centres at work sites or *Prayog parivars*. Since 1990, one of the major policies of YCMOU, has been to avoid exclusive dependence on a few chosen institutions but to grow and develop participation and networks with other institutions that are willing to provide not only assistance in delivery of programs but also extend help by way of experts in various aspects. The need and importance to decentralize administration to these centres was one of the major objectives.

In order to provide for the smooth functioning of YCMOU's programs, there was a need to link the university to local sites where students could come to register, access materials, do tests, and obtain academic counseling. A three-tier delivery system that involved the schools, the regional centres and the study centres was implemented in the initial years at this university. The distribution of these centres is designed to cater to most of the rural population of Maharashtra.

The first regional centres established in 1992 were in the regions of Mumbai, Pune, Nashik, Amravati, Aurangabad and Nagpur; One more regional centre was established at Kolhapur in 1993, and then another at Nanded in 1998. YCMOU operated through these eight regional centres until 2001. Some regions are very large and the university saw a need for more coordination. It is now considering the possibility of adding two district centres taking the total to 8 regional centres, 2 district centres and more than 1500 study centres.

In 1989-90, YCMOU began with 15 study centres; by 2000 the number of study centres had risen to 1445. One important aspect of these study centres is that most are uni-program study centres. They offer programs catering to a particular school only. For example, if it is a study centre catering to engineering, then only students enrolled in the School of Science and Technology could get access, likewise for education, computer science and so on. At the same time, some study centres are multi-program centres, particularly those catering to the Schools of Humanities and Social Sciences, and Continuing Education.

Maharashtra has 39,354 villages in 339 talukas. The average radius of taluka is about 4.5 kms and that of a district is about 50 kms. The present status regarding study centres is that on an average there are about four study centres per district for the Humanities and Social Science programs, one study centre per district for Agricultural, Teacher Education and Engineering programs and two study centres per taluka for Computer Science programs. Hence most of the academic programs of YCMOU are available to students within a distance of 4 kilometers from their place of residence or work (YCMOU, 2002, p.19).

The Government of Maharashtra has encouraged the Open University to promote distance education in the state. This not only is considered to be cost effective but also productive in maintaining employment opportunities for skilled people. Government support has helped the university gain access to the approximately 1500 institutions that house the study centres.

REGIONAL CENTRES

Regional centres provide various administrative extension services for students such as registration, examination and delivery of self-instructional learning materials. They also act as liaison centres with local institutions, industries and individuals in these regions. One regional administrator identified the work of the regional centre as being "like a mini-university that does a number of tasks essential to the running of the university." In general, regional centres are responsible for maintaining the standards of the university's various administrative affairs; coordination and supervision of the work of district centres, study centres and work centres; registration for the various educational programs offered by the university; training and orientation of academic counsellors; providing learning and study support for doctoral and post graduate students and engaging in promotional activities for YCMOU in the region.

Coordinating the work of the study centres includes selection of study centres and appointment of their administrative staff and counsellors, providing guidance to the staff, students, and coordinators and assisting them as and when required. The regional centre is also responsible for monitoring the academic and administrative work of the study centres. In their work with students, the regional centres are responsible for addressing any student issues or concerns regarding student admissions, examinations, communications, and mailings.

The work of promoting YCMOU programs is considered crucial by the university in order to help it meet its mandate of serving the people of Maharashra, and now beyond. The university shares student fees among the university headquarters (14%), the government (10%), and the regional centres (76%). This forms the regional centres' operational budget to run the study centres in their area.

The regional centres are located in government school buildings that have very poor infrastructure facilities. The locations of the four regional centres are in the centre of the cities and accessible by road. One regional centre, typical of those I visited was on the first floor of an old dilapidated municipal school and occupied two rooms, one for the Head and the other for the staff. A municipal school is run by the government and caters to the disadvantaged sections of society. The water and washroom facilities were in a pathetic condition. These offices were poorly equipped; some had a computer but often without an Internet connection, and some lacked photocopying and faxing facilities.

The Head had no fixed hours, but was available as and when required. The university appointed the heads and usually these were retired educationists from the local university or college of that region. Each regional centre had two full time staff and a number of people on temporary contract to administer the region. In general, the purposes behind setting up regional centres were to coordinate the activities, assist students in admissions and help in coordinating examinations. Besides which, they also played a major role in selecting the study centres and hiring the staff and counsellors.

DISTRICT CENTRES

The regional centres found it impossible to reach the students in the interior villages, YCMOU proposed to identify some local study centres as district centres to help in providing access to all. The first district centre was started in Akola. District centres will focus on offering support to students and study centres, and act as a link with the regional and study centres within the jurisdiction of that district. They are staffed in accordance with the needs. Mostly they stock audio-visual aids and provide them to study centres. YCMOU plans that they will become mini-regional centres.

STUDY CENTRES

The function of the study centre is not only to transmit information and provide instruction materials to students but also to offer academic counselling to enable learners to understand the distance learning modes and acquire competency in self-study. The instructors are called counsellors to stress the interactive nature of the contact sessions. The counsellors play an important role in the teaching-learning process in the distance education mode. It is the counsellor who interacts with the students and helps in their understanding of the print and audiovisual material by providing further explanations and examples and leading discussions.

I visited six study centres and interviewed the staff and some academic-counsellors and students. Five were uni-centres catering to individual schools' programs, while one was a multi-centre. Unlike the regional offices, which are organized and administered by YCMOU, the study centres are run by the participating institutions. Institutions such as a local college of education bid for a contract (one to three years) to run a study centre. The college will appoint a department head to run the centre, which will be administered under the head of the institution. The college will allocate classroom and library space to the YCMOU students and give them access to audio-visual and laboratory equipment to complete their work. Most of the instructors at the study centre are employees of the institution who take on this assignment in addition to their regular work. In order not to conflict with the regular schedule of the institution and to accommodate the work schedules of YCMOU students, the study centres usually open early in the morning and on weekends. The classrooms are used by the institution's students as well as by YCMOU.

In addition to study centres attached to academic institutions, YCMOU has centres attached to work places that provide access to needed equipment and in computer stores that provide access to computers.

Each School works with the regional centres in the identification of study centres. Some Schools identify criteria and leave it up to the regional centre to find suitable institutional settings. Others, such as the School of Continuing Education, post the criteria on their website and invite applications. In either case, usually two experts along with the Head decide whether the study centre has the required physical facilities and appropriately credentialed staff. Because these centres cover the State of Maharashtra, coordination is essential. For example, one School had 170 study centres and work centres attached to the School. In the area served by one regional centre, there were nine study centres.

MAJOR ISSUES

Based on my visits to the centres and interviews with staff and students, I identified a number of major issues concerning coordination, communications, personnel, leadership, student and staff motivation, infrastructure facilities, and accountability.

COORDINATION

This was a universal issue at the regional centres and almost all administrators at the study centres had similar reactions regarding the coordination of the roles of central administration and the schools at the Nashik centre with the regional and local study centres. One staff member of a regional centre explained, “We are the ones who perform the important task of maintaining coordination with the centres. Under our jurisdiction we have many study centres. Yet,” he went on, “The staffs at the Nashik centre at times are very unruly with us.” In his view, “the centre (headquarters) lacks coordination skills. It is not the Vice-Chancellor but the staff of some schools who act as 'Big Brother' waiting to twist our arms." By this he meant that the schools were ready to penalize them for anything that went wrong, even if not under their control. He criticized the schools that dealt directly with study centres saying that study centres were independent institutions and could withdraw their centres. "If a particular institution does not want to continue, then the responsibility lies with the regional centre, which these schools fail to understand."

One regional office staff member was very appreciative that Professor Sabale, the Vice-Chancellor, insisted on "decentralization" and wanted the regional centres to play a major role. He saw

> a strong need for decentralization, because some schools operate on their own. This creates confusion. This university at the centre lacks proper delegation of work. If they concentrate on preparing course materials, developing training programs and research and development of distance education, we at the regional centres can act as a mini–university and distribute our load with district centres, then this university can function more efficiently than it does today.

This interviewee explained that two schools did not involve the regional centres but instead handled everything directly with the study centres. He mentioned that these two schools came to them only for examinations, emergency materials and workshops. In his view, this created problems for admission, because students generally looked to the regional centre for help. For these schools, the student only took the prospectus from the regional centre, and consulted the school or their study centre about enrollment. The study centres often did not give accurate information but would direct students to the regional centre if they were faced with any problems.

It was evident from discussion that regional and study centre staff exhibited quite some frustration with this issue. One regional centre staff member said, "I would appreciate if the faculties learn to collaborate so that later it will also come down to us. Some of the schools are cooperative, while some do not want to link with us." Another also asserted this view.

But while the regional office personnel felt that they were not respected by those at the Nashik centre, some staff in the study centres found those at the regional centres to be less that cooperative. One study centre counsellor noted, "At times these staff from the regional centres are so 'bossy.' They will never reply in a pleasant way. If they are like this with us, what would be their reaction to students?" Students in turn had opinions about their counsellors. Some students felt that the counsellors treated them differently because they came from poor socio-economic backgrounds or because of their gender while a female student noted, "I have never faced any problem; whenever I have asked for details they have provided me with them. The same at my study centre too, during examination or declaration of results there is an excellent coordination as far as I know."

A number of those I interviewed believed this lack of coordination and cooperation affected the quality of the programs. One administrator stressed the priority of quality; "in our university quality is the main focus for all schools. Hence each school has to first aim at providing quality education." Another senior administrator from a school explained the advantage of going directly to the local study centres:

> I hear directly from the study centres the feedback and concerns. It takes time to get messages from the regional centres as they handle all schools and they do not have adequate facilities like internet and fax whereas the study centres have them and it is easy for my staff to deal with the issues immediately.

A regional office staff person felt that the quality of administration was deteriorating because of the lack of coordination. He compared the beginning of the university with the present and noted that the quality was better then because of their commitment and the interest of professors and students in education. He thought that things had changed for the worse. One issue was the titular position of heads of regional centres. Concerns were expressed that these people did not interest themselves in the daily running of the centres and did no coordination.

Other coordination issues concerned the study materials. The materials were prepared at Nashik and sent to the regional centres. From there, they were posted to the students. A number of counsellors and students complained that their materials arrived late: A regional office administrator commented, "The materials do not reach on time. I think they should send them earlier and print extra copies. That way we can forward them to the study centres on time," while a student voiced a complaint made by others; "we receive our materials after three months of the program, how are we going to learn?" Another concern expressed by a staff member was that the programs are modified or changed but the regional centres are not kept informed of the changes.

One person provided his summation of the concerns around coordination: "unfortunately each one thinks he is the boss and students are their property." This was reflected in the allocation of new study centres by the regional centre. One study centre coordinator mentioned that when new study centres are located within a radius of 5 kilometers it added to their other problems.

> Students just drop out of one to join the other despite the same programs being offered. At times they do not inform us which creates hassles. I think the centre should consider this aspect. The best suggestion is they can offer different programs, as this would avoid confusion to both the centres.

LACK OF PERSONNEL

Timely communication was an issue for many participants. The students attending programs had comments on the lack of response from regional centres and study centres. One student remarked, "We do not live close to the study centre or the regional centre. Just to sort out simple issues regarding admission or examination we are rolled like balls." Other students added similar woes; their issues were that it cost them money to travel to and fro from one place to another for small issues. Whenever they called from a public telephone booth, the managers at the regional centre never responded. One student even asked me to make a sudden visit to this centre and assured me that "you will find the phone off the hook until 5.00pm. Then they head home and these students are unable to contact them. They are fortunate to get them sometimes."

A study centre counsellor pointed out that students' economic circumstances needed to be taken into account. She said,

> Regarding students, they are not in a position to utilize this service (online counselling) as most of them belong to a low socio-economic status and do not have a phone. Their salary is only Rs 2000-4000 (approximately 60-100 Canadian dollars). Most of the students work at factories or at home. They are daily wage earners, with some exceptions for the students from the city. There are quite a few girls and women who are saving for their marriage. Even to make one local call, they think a lot. To come to the study centre, they would calculate the travel costs as traveling is expensive and the centres are not close to their homes.

Asked about the problems of communication, administrators at the regional centres responded by describing their problems with lack of sufficient personnel. One described the tension between completing their own administrative work and handling students' queries; "With two full time staff and so many students to cater to, we find it difficult to carry out regular duties." For this regional centre there were only three staff (the head and two administrative staff) for a total of 65,000 students (all courses).

He mentioned that the university policy is to employ new staff every three months; as a result there were no permanent employees.

> Many times these part time helpers assist us in mailing reading materials and postal services. They have to take these materials to the nearest post office and mail them to students. But they lack this skill. There is skill involved and we spend half the time training one when he leaves and its time to train the other. This is not cost effective, it costs a lot to the university and they don't understand.

The administrators believed this increased their workload and created difficulties for them. Handling a large number of students and part-time faculty was difficult when they had temporary employees because all the workload fell on the permanent staff who knew the circumstances and were able to respond. This was also an issue at another centre I visited; "We have innumerable inquires and tons of work as we are in the city. We have lots of students so our clerical job is more."

A study centre coordinator noted that not only was the system getting more complicated now than before but also the demands of the university sometimes did not fit with the schedules of the counselling staff at the centres. "The examination dates clash with those of our regular students. We do not have enough faculty to handle the invigilation, or the space to conduct examinations for all." Since both regular and YCMOU students were using the same site, this lack of coordination was a serious problem. "The Nashik centre never consults us on these matters," he continued, "I wish that they expressed their opinion and we could give suggestions. Instead this is thrust on us. We never anticipated these issues."

One study centre coordinator was very appreciative of the web-based forums and the move to online education because of their impact on the centre's workload. "This school has done remarkably well; no other university in Maharashtra offers an online program," he said.

> With the introduction of the online sessions, our workload is minimized. In the sense that the students generally don't come to our office to clarify; on the contrary they use the web. They get reply directly from the centre head and staff. If it's pertaining to our centre, then we reply. This has helped in distribution of work and saves time because if other students ask the same question then the answer is redirected. I have a background in computers and I am for online education. Also the students can't give the excuse, "I haven't understood" or "The teacher did not say." We have proof!

At another study centre the principal concluded, "I think we are overwhelmed with work, but I am proud of my staff who, despite their heavy workload, accept to teach at the university centre for distance learners."

STUDENT MOTIVATION

Counsellors and students spoke about student motivation and the teaching-learning process. Faculty hired as counsellors for YCMOU courses had to be prepared to cope with an open admissions process where they could not hold firm expectations about the prior learning experiences of their students. Many of the students had left school after standard 10 and had difficulty with the concepts while others did not have sufficient content knowledge. In addition, students often made a number of choices before they settled on a course of studies. As one faculty member pointed out, "these young kids lose interest quickly and they keep flip-flopping with various courses and programs. They are not serious in what they want."

Faculty themselves had taken on the work for various reasons. One commented that she and her colleagues "have obligations to our principal hence we accept, otherwise there is no motivation teaching students from a diverse background. The advantage in our conventional system is that we have cut off percentages and entry is tough."

More disheartening for the faculty was that many of these students had come through a schooling process that left them unprepared for the self-study associated with distance education. A staff member described how "we forego our weekend and come here on weekends to teach but to be honest it's a lifeless class, they show no enthusiasm." An administrator of one of the centres talked about how, in his opinion, the concept of self-learning had been lost with the introduction of learning materials such as study guides. He felt that these aids encouraged students to avoid challenges and concentrate on the guides and overlook reference books. An academic counsellor similarly believed that rote learning rather than critical thinking was being tested.

However, the distance education students included some who were in their middle years and who were anxious to learn. These were a source of surprise and encouragement for faculty. In contrast, the younger students wanted to be taught and one complained, "they do not provide us with proper guidance. If they spent a little extra time and explained things, we can do well." Another added, "We may not be intelligent, but they can teach us." Yet another from a different study centre noted, "The prescribed textbooks are difficult to understand and the teachers at our centre do not explain them well."

In addition, the students only came to the sessions on the weekends and some did not attend regularly so faculty did not have opportunities to know them in the same way as they did with their institution's students. Faculty found that the course materials, which a number said were excellent and used by their own students in their regular work, were often set at too high an ability level for some of the incoming students. "I have to be tough with marking," one commented, "in order to make sure to retain the quality."

ACCOUNTABILITY

Accountability was closely connected to quality and to the issues associated with coordination. The faculty in the Schools thought that they had good accountability and could point to their relationships with the study centres and the mechanisms in place for monitoring their quality, but the regional centre staff in particular saw themselves as being held accountable for activities and yet they were circumvented and left uninvolved in the name of greater accessibility. One senior staff member acknowledged that while there was lots of accountability on paper, "bureaucracy is high in our system so with the top-down approach, the people at the bottom are blamed." When things went wrong, the issue was sent to the regional office for sorting. However, the regional office staff saw themselves as being without the power to intervene with the schools on behalf of the local centres and teacher-counsellors. At least two schools preferred to deal directly with the local study centres. From the regional centres' perspective, this made providing critiques much more difficult. This issue was further complicated by the faculty at the study centres. As far as course materials were concerned the faculty maintained that the quality of the course materials was excellent, and they had excellent rapport with the Head of the School and hence felt no need to work with the regional centre.

Accountability included the way students were treated in their dealings with the university. The regional offices had dealt with many students concerning admissions and examinations issues and received many positive letters and cards from students. The regional office administrators thought that their services were taken for granted, and unacknowledged by the Nashik centre. Some students complained that they felt discriminated against because of their clothing. "Because we come from a poor family background, they do not treat us properly. They make it look as if I have come to beg." Some spoke about counsellors giving preference to females: "The girls get extra time to hand in assignments; we have to have it in on time." Some referred to being discriminated against because they were students of

YCMOU. In one institution I saw this myself. My appointment was at 9 am and I reached the centre 20 minutes early. While I was allowed inside and provided with a seat, the students who had come to submit their assignments were not allowed inside. Only when the coordinator came were they allowed to enter. These students were waiting in the hot sun, approximately 38 degrees.

Based on a sense of being discriminated against and unable to access the services they thought they needed, many students expressed a lot of frustration towards their programs. As one explained,

> We have genuinely registered for the program with the hope of getting better jobs. We do agree we do not have good academic records. But we blame the entire education system--right from schools whether classrooms or coaching classes--it boils down to affordability rather than accountability. Only the hypocrites are successful in today's society. You have to be rich or have social status, then you can get education anywhere. We cannot afford it and teachers have a bias as we do not wear good clothes and we are not from rich families. So they want us to enroll at which time they give sweet talks, then they start showing their true colors. If this continues I may drop out.

This suggests that while poor motivation and low performance are two reasons for dropping out, the university needs to be aware that there are other possible explanations.

INFRASTRUCTURE

In general, the regional centres were poorly equipped. In one office, the staff had only one computer, a very old model that was used as a typewriter. The assistant officer said they hoped to have an Internet connection within a year. When this occurs, they will need to upgrade their computing facilities. Photocopying and faxing any documents was done from a shop located across the street from the centre. They depended on this shop, and when it closed they were unable to complete their work. The only aspect, which made the officer happy, was the fact that he had received a cell phone from headquarters. Another office did have a computer and Internet access facility, but no fax machine and printer or photocopying machine. The administrator had to send his assistant to a shop to get photocopying or fax done. This was tedious, but he too proudly showed his cell phone and said that he had just received it. The regional centre officers looked forward to Internet access. As one explained:

> Because of our networking with district centres and study centres we are able to reach almost all villages and hopefully in the near future we shall achieve this by providing internet network linking all centres.

In the university's Tenth plan (2002-2207), the administrative and facilities future for regional centres was laid out. The university proposed to decentralize more of its administrative services to the regional centres. There was also a plan to connect all the regional centres through the Internet, providing them with teleconferencing and virtual classroom facilities, during the Tenth plan period. This meant that YCMOU would undertake construction activities to build the virtual classrooms as satellite send and receive sites (YCMOU, 2002, p. 51).

In comparison, the study centres were relatively well-equipped. One mentioned that their library held over 14, 000 books but I learned that while some centres had extensive institutional libraries, sometimes YCMOU students were confined to using the library resources available from YCMOU and could not access the institutional facilities. Where this occurred, it increased students' sense of discrimination.

Schools set up the criteria for required equipment beyond the multimedia expectations for all study centres. For example, one School required each study centre to have a minimum of 10 Pentium computers for 30-40 students.

While study centre personnel generally welcomed online education they noted that lots of groundwork needed to be done. Both students and faculty needed training and support from headquarters and the regional centres and lots of marketing was needed.

CONCLUSION

The regional and local study centres are important in the provision of open and distance learning at YCMOU because they are the points at which the students meet the university. These sites provide a human face to the university and the work of the staff helps students know about their programs and their requirements, provides counselling sessions on the specific content and can influence the students' motivation to complete.

From the information provided in the interviews, the organization and coordination of the work of these different centres with that of the Nashik centre is either unclear or deliberately neglected. In the linkage with any School, the only constant is the eight regional centres. Since they in turn deal with about 1500 local centres, it is not difficult to see why, if that linkage is not efficient and effective, the Schools go to their own local centres and liaise with the faculty directly. Titular heads, few administrative staff per centre and a constant round of temporary staff is obvious problematic. More problematic is the need to work with these faculty and coordinators to ensure that they understand and respect the mandate of the university towards disadvantaged groups. Students, too, need their expectations clarified and require better preparation concerning study skills prior to undertaking distance education.

The university has embarked on an ambitious program of online learning. From the sites I visited, while some will be able to avail themselves of this service, in others, the staff themselves will need training and the entire system will need to be developed.

In the last three chapters the issues raised at different levels were quite similar in nature. The intensity of the issue differed between the Nashik centre and regional centres and also varied among Heads and faculty of Schools. The themes that emerged from these issues are discussed in the next chapter.

Chapter 8

THEMES

The previous three chapters discussed the issues expressed by administrators, counsellors and students at the headquarters, regional centres and study centres. These issues arose from the experiences of people in a wide range of roles from present and former Vice-Chancellors, senior administrators, Heads and faculty of Schools, technical and professional personnel, counsellors in study centres and YCMOU learners. Some were new to YCMOU while others had been with the organization since its inception. These issues have added new dimensions to the research on open and distance learning from the Indian perspective. Though some of these issues such as access, equity, cost and quality are similar to the global issues faced by any open university, others are more specific to the problems faced in developing nations.

The themes emerged from the common issues and concerns shared by the administrators. The sub themes emerged and they were identified and classified under the four major themes. Most of the administrators had concerns regarding quality, cost, learner support , organization structure and sustainability, the sub themes as cost, politics, leadership models and their impact, socio economic conditions were separated and placed under these four themes

This chapter focuses on four themes that emerged from an inductive analysis of the issues and concerns of administrators in YCMOU, and its regional and study centres. I spent time while at Nashik thinking about what I was experiencing and over my repeated visits during the two years of the study I came to an understanding of the ways YCMOU operated. I was familiar with the operations of conventional institutions and it took some time for me to grasp the working of YCMOU when the work itself was distributed. Visiting the various regional and study centres was very helpful in my conceptualization of the work of the university and meeting and talking with the students about their hopes and fears for their education brought home to me the particular mission of YCMOU and its importance to the state. The open university has brought about a significant change in the educational scenario by providing access and equity to the learners across the state. However, its acceptance as a credible institution of higher learning has been slower and along a ragged front with some schools having a stronger market profile and higher reputation than others where the reputation is possibly targeted at a different clientele.

In reviewing the history of the open university over the last thirteen years, three major phases can be identified. The first phase was the initiation period – during this time more emphasis was laid on the setting up of an open university in the state. It took lot of effort to establish the Open University, and in the last two years of the Eighth five-year plan, proposals were made to implement better quality education as per the objectives stated in the mission statement. These were on similar lines to those of the UK Open University and the Open University of Thailand. This was followed after six years by a lull, when most of the academic proposals concerned trying to complete work already in progress. This process was extended because there was a lack of good staff recruitment. Some of the initially hired faculty had left and others were hesitant to join, as they were skeptical about distance education. Slowly the situation improved. This period of restoration has been followed by the present period of growth. Within the last three years there have been tremendous advances by way of smooth transitioning of print based education to multimedia approaches to education, and most recently with the introduction of satellite based education. This places YCMOU at the forefront of work on online education in the open and distance educational arena in India.

THE FOUR THEMES

Previous chapters delineated the various aspects of issues that acted as stumbling blocks to the implementation of open and distance education to the fullest at YCMOU. Underlying these issues are four themes that relate directly to the effective administration of the university. They are sustainability, organization, quality and learner support. Each is discussed in turn.

SUSTAINABILITY

Sustainability refers to the organization's ability to continue to survive through maintaining a balance between its activities and the surrounding environment. For YCMOU this balancing involves its activities in developing and affirming its mission, planning its implementation, and working with the environmental pressures of state and national politics while building its reputation with government and academic stakeholders such as the University Grants Committee and the Distance Education Council, and as well as the people it is to serve.

No society is devoid of politics, the same holds true for institutions. In the Indian scenario, the bureaucratic system still holds a prominent place, hence a hierarchical form of structure gives rise to a top down approach, and this leads to having "followers." This pattern is seen even at the regional and study centres. Although not all schools face this, it leads to slowdowns in work. The quality of work is affected and students also get involved in this system. Politics at the central level, the state level politics, and the internal politics have hampered the growth of YCMOU consciously or unconsciously.

Governments in India always prefer to hold the reins in educational policy matters. This is evident in the external appointments of the Chancellor, a titular position taken up by the Head of State, and of the senior principal, the Vice-Chancellor. The appointment of an external head while meeting the political needs of government stakeholders raises questions for continuing staff about the organization's ongoing well-being. In any university there are faculty who are concerned regarding the appointment of Vice-Chancellors but in this open university there is concern among some that an inappropriate appointment could severely upset the fledgling organization. The Vice-Chancellor's vision is set in the five-year plan and is integral to the direction the university is to take. In addition, qualifications and experiences apart, Vice-Chancellor's serve a tenure of five years which is seen as adding to the instability.

While faculty remember the first Vice-Chancellor as the person with the vision to lobby for and have YCMOU established, and the third Vice-Chancellor as the one who took that vision forward in implemented systems and ensuring quality, they also remember that the appointment of the second Vice-Chancellor was less beneficial. The appointment brought to the role a local municipal counsellor who did not have a strong understanding of distance education. His appointment was brief but it raised the spectre of what an inopportune appointment could do.

At the same time there is a cadre of administrators who have been with this university since its inception, and they know the system much better than an outsider who would come from a conventional university. These faculties are concerned about possible breaks in the continuity of their work. Among them are seasoned administrators who could run the university but they recognize that anyone in the Vice-Chancellor's position needs to have contacts throughout government and be able to work within the heavy political interference that is the reality at YCMOU.

It has been only in the last year that the present Vice-Chancellor has appointed an Assistant Vice-Chancellor to share the administrative workload. It may well be that this person becomes the chief executive officer in charge of the academic affairs of the institution as has occurred at many North American universities and brings continuity to the Vice-Chancellor's position. As it presently stands however, the traditional bureaucratic model with top-down decision-making would do little to restore confidence if a poor appointment to Vice-Chancellor was made. Unlike traditional universities where the power and authority of the Vice-Chancellor is balanced by the voices of faculty and students, this is not the case at YCMOU where only the full-time academic staff who work at Nashik are faculty while the teacher-counsellors are part-time employees of the study centres and not employees of YCMOU, and students have no collective voice.

Faculty recruitment and retention is important to sustainability. At YCMOU, the initial recruitment of staff was not successful with many leaving in the first five years. Most of them came from conventional universities and had little knowledge of distance education. At YCMOU their tasks were to facilitate and oversee curriculum development, to offer in-services to counsellors, and to help liaise with regional and study centres. The workload was heavy, involved extensive and inconvenient travel, and there was little time for personal research. Faculty who were used to working with students whom they had come to know well through regular classes found the loss of teaching to be dispiriting. Many left the institution. However while there has been some university-wide orientation of newly hired faculty, most said that they were left to learn from their overworked colleagues as they went along. In at least one case, the cynicism of colleagues had severely blunted the enthusiasm of a faculty member. Even those who start out enthusiastic are likely to become jaded in this situation.

Another factor in YCMOU's sustainability is its mission statement. Its statement puts the social development goals of the university first: to achieve universalization and equity of educational opportunities for all and, in particular, the disadvantaged in society through an emphasis on vocational and technical programs offered in the local language. These goals tie into the development goals of the state and are aligned to them through the five-year plans. The result is that the university is seen as a social instrument by the state politicians and the wishes of these stakeholders must be addressed. At the same time, as a university, YCMOU is seeking recognition of parity of its degrees, certificates and diplomas with those of other universities throughout India and hence in its academic work of teaching and research must meet the demands of gatekeepers such as UGC and DEC and compete with the aspirations of other open universities. It also has to ensure that its reputation as a credible and effective organization is known in society and especially among those who might be its clientele. Hence its planning has to include appropriate marketing and publicity.

One example of the negative reactions YCMOU has had to deal with is the argument of Powar (2002) who believes that "massification" of higher education has lowered the quality of higher education in the average institution. He agrees that while India has meritorious institutions like the Indian Institute of Technology and the Indian Institute of Management, these co exist with other more mediocre institutions. The metaphor he uses describes them as " islands of excellence within a sea of mediocrity" (p. 57). Thus with quality being regarded as a prime requisite in the "knowledge era", universities are being encouraged to balance access and equity with quality.

In April 2004, YCMOU's degrees were judged to be on a par with those from other Indian universities. The statement came from the University Grants Commission and noted that open universities established by state legislatures were "empowered to award degrees in terms of Section 22(1) of the University Grants Commission Act and also certificates and diplomas under the equivalent legislation. This statement has been put on their main web page and many of the schools have also added it to their own pages for potential students.

The next dimension for sustainability is planning. At YCMOU, planning is embedded in the five-year planning cycles required for federal funding and state support. Initially, important planning decisions such as the open access and modular system were made. The combination of open access and choice of a modular approach were deliberate steps to provide a niche for YCMOU in the competitive market of traditional universities in Maharashra. The open access allows students who did not complete high school (standard 10) or received weak standard 10 grades to have access to further education. The multiple entry and exit system with well-planned vertical mobility is also a positive feature for students who have to save to be able to afford courses. This allows them to balance working, family matters and studying. More recently the focus has been on vertical mobility to meet the needs of graduates and expand their employment opportunities. Lately, the traditional graduate degrees have been added. These initiatives reflect a focus on the academic content of programs. YCMOU has also taken steps to build supporting infrastructures—an organizational one to deal with admissions, registration and examinations and an instructional one to provide for appropriate media.

The instructional media at YCMOU started out with a focus on written textbooks and accompanying workbooks. Additional audio and videotapes were made to explain difficult concepts or illustrate ideas. Under the third Vice-chancellor, Professor Pradhan, a move was made to become web-based and so Compact Disks were developed which provided illustrated lectures on difficult topics, and web forums which used list serves were established for a number of courses especially in the School of Science and Technology. Most recently, Professor Sabale, the present Vice-Chancellor, has proposed a video conferencing system linking some of the study centres to provide simultaneous counseling sessions. I saw little evidence that this had been thought through in terms of costs in development of the facilities and in personnel and even the Vice-Chancellor himself, seemed to have doubts about its feasibility given the numbers who would need to be served if another digital divide was not to be created. However the government of India recently gave IGNOU permission to use satellites to broadcast its programs. IGNOU already has six television channels and uses interactive radio counselling programs with a toll-free telephone-in capability that can be heard throughout the country. The national university has set up 250 downlink sites which can receive these satellite broadcasts (Panda and McIssac, 2003). In these circumstances it is not difficult to know how this idea got on the table and who was championing it.

Technology will continue to change but an effective infrastructure is only available in some areas of the state. YCMOU lacks the basic infrastructure to provide web-based services in many of its study centres especially in the rural areas. It would seem that rather than focusing on one technology, a plan with multiple technology choices based on the needs and capabilities of the districts would be necessary, at least as an interim measure. In addition, many universities have had experience with satellite-based video-conferencing and that expertise could be used in developing such plans.

Related Literature

Sustainability is a positive concept that has at least two main definitions in the literature. Its most direct meaning is for something to be able to continue over time and in a distance education context means the "elements and ingredients considered critical to operate in an efficient manner" (Broekhuis & Vos, 2003, p.). Morris (2003) puts it that "for distance education to become sustainable, the persons involved must be adequately prepared for their involvement" (p. 74). Penfield and Larson (1996) also assessed the factors for sustainability of distance education. They concluded that two were essential: a coordinated infrastructure and an enthusiastic and committed faculty. In his assessment of tools for sustainability of distance education for small states, Morris concluded that the best list of criteria was that presented by Pearson in a Delphi study of 30 Canadian leaders in distance education. The critical factors these participants supported fell into five categories. One was organizational: an identified need; visible, spirited key leaders; sufficient time for needs analysis of the potential clientele; marketing plans, cost effectiveness plans and feasibility justification; identified supporters in industry, government and the institution; credibility of instruction with public, faculty, students and supporters; and administrators with knowledge of distance education. The second was personnel: faculty support with motivational incentives, and instructional design support. The third was infrastructure: sufficient funds for production equipment, facilities and ongoing operational expenses; and adequate sites, staff and facilities, with appropriate equipment. The fourth was the academic content: quality educational content, equivalency with similar qualifications, and transfer credit. The fifth was adequate student support. These form a useful list which those planning for distance education should consider.

The second definition of sustainability is linked more explicitly to the relationship of the organization to its environment. First identified at the World Commission on Sustainable Development in 1987, the Brundland definition discusses sustainability as "meeting the needs of the present generation without compromising the ability of future generations to meet their needs" (p. 43). The Brundland perspective is about the organization being an instrument for sustainable development. In this sense, YCMOU has incorporated this understanding of sustainability in its mission statement. This also fits within the Delhi Declaration (1993) when the nine high population countries reaffirmed the Jomtien declaration of access to basic education for children and adults, gender equity, and advances in the quality of education through distance education to involve teacher training and other personnel training, reaching the neo-literates and marginalized and making use of new technologies tailored to each country's needs (Vissar, 1994). Evans (2002) described policies as "the tools used by government to enact changes they wish to make" (p. 32). This then reflects the state's interest in YCMOU.

At the institutional level, Evans and Nation (2000) discussed policy development concerning technology. They observed:

> In most cases, institutional policies around new technology reflect the global push into new technologies in education and universities in particular. It is seen as inevitable that a "competitive" university will need to keep pace with technological change. (p. 173)

Hence policy planners need to be aware of and keep pace with changing technology. In examining planning and managing for a changing environment, Peterson et al (1997) propose that the planning model that best responds to our contemporary challenges is a contextual model (Chaffee, 1985). They argue that while aspects of long-range and strategic planning are very useful and should be retained, organizations should adopt a planning model that recognizes the importance of context. Haughey (2003) also proposes the value of a contextual model and stresses the need to move from strategic planning to holistic planning. She describes what this would involve, including the participation of academics in any technology integration.

YCMOU has placed emphasis on both forms of sustainability. Given the university's restricted budget, it has attempted to spend its resources wisely and to obtain increased fiscal support through its five-year plans. Its major challenges are that while its leaders have been key in its development, and have generally had close links to government, not all have been knowledgeable about distance education. In a five year period, their learning curve is extreme and likely to result in friction with continuing and more knowledgeable staff. In terms of infrastructure, the pressures to decentralize combined with competing forms of communication and various power alliances between centres and Schools, have led to a series of issues that need resolution. This has to be planned and should be included in the five-year plans. In addition, while the plans reflect the initiatives of the various Schools, more emphasis might be given to holistic plans that better reflect a commitment from the faculty members as a whole. Plans should be more than amalgamations of the individual work plans of various Schools and Divisions.

QUALITY

Quality refers to the extent to which organizations meet their client's or customer's needs. In educational organizations this includes not only the learners but also their employers or subsequent educational organizations. The extent of satisfaction is seen to reflect on the effectiveness and efficiency of the organization itself. Because of this, relatively recent organizations such as YCMOU, place a great deal of emphasis on establishing the quality of their products and services in order to help establish their reputation in the marketplace with potential learners, collegial institutions and possible employers.

At YCMOU, quality has been part of the mission statement since. Its beginning and it is reiterated in every five-year plan. Each School has developed a strategy for monitoring the quality of its programs. Most Schools hire experts to identify the parameters of a program and the specific courses and content that should be included. Then others are hired to write the appropriate texts and workbooks. This may be done in a workshop setting as in the School of Continuing Education or by the faculty themselves as occurs in the School of Education. All Schools have access to the services of an instructional designer and the School of Agricultural Sciences usually consults practitioners as well as content experts. These materials are sent to the appropriate centre for production and multi-copying and then to Student Support Services where the materials are distributed to regional centres for subsequent distribution to students. Students work through the materials and attend regular counselling sessions where teacher-counsellors can explain difficulties and answer questions. The students do assignments that are marked by their counsellor. At the end of the term, the students sit for a final examination designed by the faculty in the School. Markers (often the original teacher-counsellors) hired by the study centre evaluate the work and the marks are forwarded to the centre at Nashik where student grades are assigned.

Each School has its own means of monitoring the process. The School of Science and Technology has developed a quality assurance process that involves rating the services provided based on visits from the faculty and feedback from students and those at the study centres. Study centres are similarly evaluated. In addition, schools such as Education provide in-service sessions for the counsellors and teacher practicum supervisors and use these sessions to obtain feedback about the materials and what could be improved. Since study centres are actually independent businesses contracted by YCMOU to provide services, they too gather information form students and amass statistics on everything from use of the library to numbers of students who purchase texts in order to be approved through any financial auditing process. The centres are responsible for providing facilities and hiring and monitoring staff as per their contract. They collect student fees and are charged a set fee per 10 students, which is considered one class, which must be reimbursed to YCMOU. Some schools have more links to potential employers than others. Students in Education are already employed in their chosen field while those in Continuing Education or Science and Technology may not be. In these latter situations, the schools have developed direct links with industry to be able to help meet market demand through providing people with the appropriate skills.

The issue of language is a difficult one for the schools. In order to meet the needs of many of its clientele, the programs are developed in Marathi and texts were specifically written for the students. However as the schools attempt to make cost economies by purchasing quality textbooks that are already available, usually in English, or courses from other open universities, that may be in English or Hindi, or the local language of that region, they find the economy eradicated by the extended time needed to translate and adapt the materials to YCMOU students and programs.

In addition, while some parents in rural areas may be content with a teacher whose only language is Marathi, many others, especially in the cities, believe that their children should also learn English to be best able to succeed.

Unlike traditional universities where faculty each assigned courses and the quality of their teaching can be monitored, in distance education institutions the teaching act is distributed among those who design the course, those who develop the materials, the students who work with them and the counsellors who advice and assist them with their problems. This makes accountability much more difficult to gauge. Traditionally, in universities, because the numbers of administrators are much fewer than that of faculty and staff, the goals and tasks of individuals are somewhat unclear, and the motivational impact on faculty through assessment is low, there is less administrative control (Birnbaum, 1988). In YCMOU, the numbers of faculty are relatively small with only 262 faculty in 2003; These work closely enough together in departments of only three or four people, Education with ten being the exception, that their work is highly integrated and visible to others, without need of close supervision.

However, it is the study centres that hire the part-time counsellors to work with students and these counsellors varied in the extent of their commitment and willingness to become involved in an interactive as opposed to a lecture format according to the students. Regional centres are supposed to oversee the hiring process and some schools are closely involved in interviewing and assessing potential counsellors. This is where the reputation of the local study centre and its management of staff can affect YCMOU and the work of its students. A centre with poor supervisory practices may well do as one student put it; "sweet talk to us to get us to register and then leave us without support."

Quality is a global issue, but the way quality is perceived differs. At YCMOU, different schools had different thoughts on this issue. Some compared quality to quantity in terms of increases in enrollment, number of courses offered, and number of programs since its inception. Others recognized that an increase in numbers might be due to good marketing but was not linked necessarily to any increase in quality. On the contrary there were schools that clearly demarked quality assurance and were working towards improving the quality of their school through innovative development of course materials, improved training for facilitators, and production of better self learning materials. Ironically, because the staff in the schools were so busy working on their own materials, coordinating their production, and liaising and visiting study centres, there was not as much consistency in approaching quality assurance as might be expected.

The senior administrators were not unaware of the differences among the schools. They put it down to being "blinkered and therefore only looking at their own path" and not seeing the bigger picture or thinking beyond the conventional and they put themselves in this position as well. One senior staff remarked that "in open and distance education, accountable should be a collective term. Most of the work is collaborative or to be specific it's team work." He recognized the importance of all levels in the organization being accountable asking, "if I am accountable for what I do and my boss is not then where do I go? I have to finally agree to his terms."

Professional development for faculty in their own areas and for the institution about distance education in general would seem to important in keeping the university at the cutting edge of what was happening elsewhere. While it was promoted in some schools it was not in others and the university as whole seemed to have focused more on the training of their part-time counsellors than their full-time faculty and staff.

Related Literature

In the literature, unlike sustainability, quality has had a long history. Initially it referred to inspection of the product and then in the late 40s quality control processes were added to ensure that poor production processes could be eliminated. In the early 70s under the influence of writers such as Demming, terms such as quality assurance and continuous quality improvement became common in the literature and the ISO accreditation that showed that the organization was in control of its processes and functions and trying to improve became popular. The advent of total quality management (TQM) in the mid-eighties, however, has become so endemic in management thinking that it seems self-evident. TQM (Demming, 1986) was built on Demming's earlier ideas but became a way of thinking rather than an extra set of practices. It emphasized a client orientation and continuous improvement for employees, suppliers and others.

One problem with the literature on TQM is that it was developed with reference to business and industry rather than by academics and non-profit organizations such as universities with their multiple stakeholders have difficulty deciding who is the customer (Broekhuis & Vos, 2003). This could be considered an issue at YCMOU, where convincing counsellors of the value of the approach and the need for commitment to their students when they are actually employees of a study centre and only peripherally involved in the university could be difficult. Boundary issues such as access to local transportation and facilities are likely to cause friction between an entrepreneurial relationship and an academic service one. Quality in open and distance learning covers far more than tangible products. It covers a number of aspects including products, processes, production and delivery system, and philosophy (COL, 1997).

The proxy measure in service organizations such as universities is to assess the quality of the process as a form of quality assurance. Organizations have dealt with quality assurance through strategies such as "handbooks, increased levels of formalization, standardizing working practices and process and measuring quality satisfaction" (Broekhuis & Vos, 2003, p. 13.) Some of these are evident in the strategies that have been adopted by the schools. The problem is that any form of quality assurance requires the gathering of data to support these policies and YCMOU is very short of administrative assistants at all levels who could gather and monitor this information. Further, as Robinson (1994) states, "the notion of quality differs for different groups of people. It means different things to different stakeholders: designers, managers, students, producers, tutors, employers or government" (p. 21).

One final point about total quality management is that it has been inclined to support single blueprint thinking, a one best way approach. What is evident from the various schools at YCMOU is that they have adopted many different approaches to assessing quality, which may better fit their particular clientele and programs. For example, Killedar (2003) believes that use of the just in time approach to production would reduce publication of unneeded inventory stocks of texts and workbooks. In the latest literature (Evans and Lindsay, 1999; Madu, 2003; Waddock & Bodwell, 2002) TQM has moved from a focus on the actual operational processes to being integrated into the overall strategic planning processes of the organization and focusing on teams, leadership and culture as seen in Senge's (1990) learning organization literature.

In India, there has been extensive research and scholarship concerning the question of quality (Rao and Mohanraj, 1995, Panda 1999; Powar, 1996, 2004, Stella, 2004). Quality assessment in higher education in India began with Independence and has continued since. To increase access, the Indian government encouraged the development of privately funded institutions and this raised questions about quality (Stella, 2002). After considerable discussion and analysis of international systems, the National Assessment and Accreditation Council (NAAC) was formed in 1995 and Sharma (1995) began to identify parallel indicators for the distance education system. In 1997 Chandrashekhara Rao, then Vice-Chancellor of BRAOU, developed a three-part framework of micro, macro and mega-indicators and Powar (2002) developed a short list of performance indicators evaluating teaching, research and administration that could be applied to open and distance learning institutions. To date, the National Assessment and Accreditation Council has only developed a seven criteria framework that closely parallels that for the traditional institutions. Koul (1997) noted that a number of open universities had just begun to operate, only three, BRAOU (1982), IGNOU (1985) and YCMOU (1989) had quality assurance practices. He went on to note that "It is clear from the organizational structures of BRAOU and IGNOU that they have no mechanisms provided explicitly for quality assurance. . . . YCMOU, on the other hand, explicitly provides for quality assurance in its management plan" (p. 45).

Stella (2004) points out that accountability and self-improvement are likely purposes for quality assurance and relates that from the NAAC perspective the self-study document aimed at self-improvement is the backbone of the framework. This is also likely to be in part because the UGC is not a major funder of state-run universities such as YCMOU. The States have not adopted quality assurance with the same enthusiasm as the national government. Besides, generic frameworks for open and distance learning, other authors have identified quality assurance processes for specific areas of distance education such as learner assessment (Koul, 2004), learner support services (Venkaiah, 2004), multimedia learning systems (Mukhopadhyay, 2004) or governance (Powar, 2004).

ORGANIZATION

Open and distance learning institutions have a structure that differs markedly from that of conventional universities. The actual university campus is usually small and out of proportion, given the size of its student population, having only administrative and production facilities. These universities use a tiered network of centres to provide services since students do not generally come on campus. Students wanting to interact with university personnel are likely to go to the study centre closest to their home or place of work. When there are large numbers of these sites, the university usually coordinates them through a regional centre. In the case of YCMOU, the regional centres include a number of districts and since the university has found it necessary to continue to expand the number of study centres it has chosen to develop intermediate sites at the district level to coordinate those districts with a heavy complement of local centres. Unlike traditional universities, distance education institutions, therefore, allocate more resources to the coordination of this infrastructure, which is expected to provide instructional and learner support services. In conventional universities, the hierarchy is usually quite flat with only the department chair, the dean and the provost between the faculty member and the president. At YCMOU, the structure is equally flat for faculty with only the Heads of Schools between them and the Vice-Chancellor. However, for those who actually provide the counselling to students, the structure is much taller with study centre coordinators, and regional centre administrators between them and the Heads of Schools. This immediately makes the possibility of unclear communication more likely. The structure from the perspective of the counsellors would seem to be much more bureaucratic.

However, while there is a sequence of roles identified for administrators at regional and local centres, the reality at YCMOU is that each School has developed its own infrastructure network that may depend on the regional centres to a greater or lesser degree. In Education, for example, where the School also liaises with the actual employment sites of its students, it has developed its links with the study centres. Faculty monitor closely the counselling sessions at the centres and they often give workshops there for counsellors and students. This provides the School with a tightly centralized network for monitoring quality and obtaining feedback on its courses. In contrast, some other Schools depend on the regional centre to provide this coordination and provide the feedback to them. The numbers of students and local study centres attached to a regional centre seems to be a factor in the ability of the regional centre to provide such services effectively and efficiently and hence the extent of centralization or decentralization it is accorded.

The present Vice-Chancellor has indicated that he wishes to decentralize services to the regional centres. However, it is not clear that this site-based management will be effective if there are insufficient personnel or facilities such as Internet and fax access at the regional centres. As administrative and student support services go online, the centres will be sidelined if they do not have access to these databases and the capability to add data to them.

At the same time, there may be a place for different organizational structures depending on the particular School. Some have strong links with employers and need the regional centres to assist in coordinating them. In addition, the regional centres are expected to assist with publicity. Regional centres are run by the university usually in a building rented for that purpose. Local centres are run by their own institutions under contract to YCMOU.

The relationship of the local centres and the university is one that is very different from that in most conventional educational institutions. Essentially, local institutions bid to become study centres. They are expected to be a willing institution with the necessary infrastructure and facilities, enthusiastic faculty members and in a suitable location. They are referred to on the School of Continuing Education's web page as "the backbone of the open university concept" and are expected to undertake all activities for the effective implementation of certificate courses, including publicity, administration, student training, monitoring workplaces, conducting continuous assessment, giving class tests and final exams and providing assistance to students concerning their educational problems. In return, the centre is expected to collect fees and charge for materials according to the policy of the university. This is reimbursed to the university. The student also pays a study centre fee that is used for the management of the study centre. This organizational relationship is part of the deinstitutionalization of the university, referred to YCMOU's five-year plans, to avoid exclusive dependence on existing educational institutions and consciously develop cooperation with non-educational organizations so that the goals of the university are achieved through the work of society as a whole.

At YCMOU, because each School has its own network of local study centres, the coordination of the overall infrastructure is complex and there are bound to be irregularities in the system based on the different disciplines and their requirements.

Related Literature

Single mode distance education universities are complex organizations. They tend to have three operational components: administration dealing with the governance, finance, planning and evaluation of the organization; academic, involving course development and dissemination; and production of the relevant materials. They also differ from conventional institutions because of the unusual combination of academic, professional and technical people involved in the core work of the university, and the high numbers of contract or part-time academics. Ramakrishna (1995) compared conventional and open universities and identified five points of comparison. There was a greater degree of complexity in the academic functioning of the open university. Faculty required a different point of reference since job demarcation was less clear. Job requirements were much more unpredictable and greater cooperation among team members was required. There was a greater awareness of and cooperation with the institution's objectives and there was a need to accept nonconformity to the set patterns of conventional institutions.

He went on to point out that since the faculty did not teach, there was loss of immediate feedback about themselves as teachers and experts. They now had to work on teams and to follow others' deadlines that integrated their work with the work of others, and they were asked to do a greater variety of tasks. Their work now had greater visibility and they had to depend on others to tutor or counsel their courses. The cycle of work in a single mode institution is year-round and never-ending and the nature of the work requires faculty to be personally committed to the goals.

Together these highlight some of the organization and administrative differences between conventional and open universities. Ramakrishna, based on his experience at BRAOU, suggested that staff development in open universities and ongoing professional development linked into evaluative feedback systems were even more important in open universities to keep staff aware of the changes in pedagogy and technology and sustain their commitment to the institutional goals. He also suggested that there was a need for greater acceptance of "open management" (Paul, 1990) as the process most appropriate to open and distance education institutions.

Weick (1975) proposed "loose coupling" as a model of organizational systems and it has generally been adopted as the model of universities. It refers to where components or sections of the institution are linked but are not tightly interdependent. He thought this led to greater freedom within the subsystems because they were more open to innovation and more self-determining and less concerned with external conditions. The problem was coordination of these semi-autonomous units. At YCMOU, this concept is visible in the work of the schools which link with the regional and study centres to develop a system that works for them. Overall coordination is difficult as Weick proposed. However, the difference is that the YCMOU schools are linked through their common mission and single mode in ways conventional universities are not.

In addition, YCMOU has taken an entrepreneurial stance to their relationships with study centres. In this they are not unique. IGNOU has similar arrangements with computing centres (Panda & McIsaac, 2003). This further complicates the provision of services and highlights the importance of monitoring and staff development if the values of those working with the students are to be in alignment with those of YCMOU. Garje and Rastogi (1995) in a paper given at the Eighth Annual Conference of the Asian Association of Open Universities, in New Delhi, discuss the study centre model at YCMOU. They note that the long-term plan is eventually to have 11 regional centres, to move to a four-tier system involving district centres, and to continue to expand the numbers of study centres. Plans also mentioned that are now coming to fruition, include systems of on-demand and online examinations, a decentralized approach to examinations and regional centres as the information centres for post-graduate and research students. In particular they note plans for supportive student counselling that would involve helping students at the pre-registration phase make appropriate choices, giving the necessary support and counsel throughout the program and providing employment or vocational options on completion.

LEARNER SUPPORT

Open and distance learning institutions have to depend on others to help provide education to their learners, and therefore their infrastructures of learner support are very important. The university exists because of the learners, and although the previous three themes are important aspects of an educational institution, this cannot happen without the learner. In conventional institutions, students are visible daily on campus, attending classes, consulting faculty and seeking administrative assistance. In distance education universities, students are usually employed full-time and so they attend their local study centre usually on Saturdays and Sundays or on weekday evenings. Until recently, unless faculty went to these centres, they did not interact with students. Now more students can contact faculty via e-mail but in a distance education institution the person they are likely to contact is the course counsellor rather than the designer of the course.

Student services need to be considered holistically. Students need appropriate pre-registration counseling, and they need support throughout their studies. They also need access to libraries, to audio-visual aids, and to laboratories. In a tiered model, these services are provided by the regional and local study centres. The systems in place at YCMOU seem to have developed appropriate roles and responsibilities for these two units, however, there seems to be evince of ambiguity and overlaps in the way these functions are operationalized. Study centres are under a contractual agreement with the university and this is meant to be monitored both by the regional centre for its administration and by the appropriate school for its academic provision. While the schools seem to have close contact with the local centres regarding the quality of the materials and student progress, it was less clear that the other services they were required to provide learners were being monitored. For example, one of the students at one study centre remarked, "You are here so the fan is on. Otherwise we have class, we sweat, but they never switch on the fans." The centres are required to provide power, electricity and water to meet students' needs but obviously if the centre wishes to cut costs, there are ways to do so which affect students directly but are not known unless students complain or there are unannounced inspections such as there are in IGNOU centres.

Library privileges were another student concern. The institutions have their own libraries and these are not necessarily open to YCMOU students unless part of the contract. Centres are required to provide space but YCMOU provides the library. This is likely to be much less extensive than that of the local institution. Hence it was difficult to know when students complained, if the problem was one of poor communication or actual reduction of the services they were entitled to. A student said,

> We pay our fees, but they do not allow us to borrow books at times. Anyways these facilities are not available on weekend. There is a need to look in this matter and I think this college should also lend us books from their library- we are not thieves; but we are always look at with suspicion. Now to whom do we report this?

Another area that students mentioned was immediate feedback; "we send mail and we never get reply." Again, this may be a problem with lack of service or of too few staff at the centre. It is to the local centre's advantage to obtain sufficient students for a course and to retain those students for other courses since the fees paid to the centre are dependent on the number of students. The way the system is structured the centre needs to have full-course loads in order to obtain the most return for their instructor costs and they need to retain these students over time so that they can reduce the money spent on publicity for courses. A number of the complaints from one local centre about having local centres within 5 kilometers of one another was related to their concern that they had lost students and hence income to the new centre. The other complaints about lack of student feedback mentioned in the findings chapters may be related to the lack of sufficient personnel in some regional centres or to poor management practices such as the three-month hiring practice for temporary workers that led to endless training of new employees. However, the university should be aware that as they add online services, they need to add staff to cope with the increase in communications. Some students also mentioned the lack of timely delivery of their instructional materials. This may have been a single instance but nonetheless one of the principles underlying learner support systems is that learners should have a reasonable chance of success and this situation would challenge that principle.

Many other students were very supportive of the services they received from local study centres and their school. They felt personally connected to their school. One student commented, "Our school is the best, although we haven't met with the director, we are able to keep contact with him through mails. He takes time to reply to us and so do the staff at the centre. " These students were using the online forum and found it helpful: "Now with the online discussion, most of our concerns are heard and I am sure eventually this shall be sorted out." Another student from a different school said,

> I have no complains with the study centre or the school, they function efficiently. We meet regularly for contact session and training programs, we talk with our coordinators and we have access to them and the resources at the study centres. The counsellors of the study centre are also very helpful, and assist us in all possible way.

In both situations, although the students had not met faculty, they had contact with them but depended for much of their learning on the local study centre counsellors and coordinators.

Over the course of my data gathering, I discovered a variety of ways in which YCMOU and the schools monitored the work of the centres. This varied from surveys with feedback filled out by local centre coordinators and returned to the schools, to deliberate quality assurance mechanisms such as that put in place by the School of Science and Technology. One regional centre used a feedback survey from students to act as another means for obtaining information on student experiences of their programs. It may be that YCMOU would benefit from sharing these strategies and regularizing them to ensure that there is sufficient institutional data available.

Related Literature

Learner support services refer to "any services other than the actual course material which an institution provides to its learners to realize the instructional objects of the course" (Croft, 1991). More recently, Dhanarajan (2003) identified three core elements to learner support: administrative support, technology support and learning support. Good learner support systems are integral to a distance education institution's continuing success. Satisfied students are the university's best publicity vehicle. There is an extensive literature on learner support in distance education but much of it is written from the perspective of western developed countries where distance education is being added to the traditional offerings of the university. In addition, the model used is that of an extended classroom where the remote students are connected to the instructor through a web-based instructional management system. Hence, much of the advice is premised on regular faculty interaction with students.

In contrast, single mode institutions that use a tiered system to provide learner services have some similar but many different concerns. Common issues concern the administrative processes such as admissions, enrollment and placement, academic concerns such as tutorials and assessment, counselling issues such as academic advising, program information and financial assistance, and production concerns such as delivery of materials and adequacy of the equipment. The actual provision of these services however is often unique to single mode institutions. The duties are shared among a variety of personnel from central production staff to local study counsellors, from university personnel to independent faculty and staff hired to work in the study centres, and from full-time to part-time workers, some working for the university and others under contract, hence coordination and monitoring of these services is complex.

One of the most useful documents on learner support is the list of guidelines provided by the Quality Assurance Agency in Higher Education in the UK (1999). It identifies 13 guidelines that generally follow Demming's Plan-Do-Check-Act cycle. They stress written binding agreements, clarity of roles, stated expectations and timelines and identify which are the most crucial items to be monitored. Many of the other suggestions for implementing learner support systems repeat what is already present in this document.

One major problem in adopting western-based learner support systems without adjudication is that they automatically include ways of thinking and doing that may not fit with the cultural context in which they are placed. This issue has been raised by several writers. Robinson (2004) has pointed out the shortcomings of not considering the cultural issues in sharing materials across Western and Chinese cultures in open and distance learning, noting "Management practices, relationships between teachers and learners, the nature of academic discourse, approaches to learning and examinations and the perception of what constitutes plagiarism (for staff and for students) may differ markedly between partners" (p. 20)

Koul (1995) more directly described the problem of semantics with the use of counselling in describing interactive discussion in the Indian context. He described, in words echoed by both coordinators and faculty, that to teach was to provide knowledge and to take a course was to be taught that knowledge. Students expected to hear and have explained concepts and ideas and teachers expected to lecture. Both students and teachers felt they never had enough time to "cover" the curriculum. In an extended family culture as in India, family members rather than outsiders provided counselling for problems. In the case of academic problems, where many family members had little experience, the student was left not knowing who to turn to: not to the teacher who was seen to provide only information, and not to an coordinator or counsellor who were outsiders. YCMOU's potential student population is likely to include such students. Based on the work of Robinson and others, Shrestha (1997) recommends finding a way to reach into the family so that the family can be involved and all family members, including women and girls, can access education. Other recommendations were to replicate the small family group in cohort based learning and to have courses available in the local language. YCMOU has addressed both of these in its use of frequent contact sessions and of Marathi.

DISCUSSION

John Daniel, the Vice-Chancellor of the British Open University coined the term mega universities in his study of the ten large universities with over 100,000 students that were formed following the model of the British OU. In 1998, in a speech at George Washington University, US, Daniel stressed the importance of the role of mega universities for access to higher education all over the world. He described the present situation where the majority of people under 20 are in the developing world and lack access to higher education. To provide them with that access, he believed that institutions such as mega universities were needed and that, in the future when more students were gaining access to higher education, there was a hope that these universities could combine flexibility, quality, low cost and high volume in the ways needed to solve the access problem. In 1998 there were ten. In 2004, there are at least fifteen mega universities in the world: in Pakistan, Bangladesh, China, Turkey, Germany, India, Indonesia, South Korea, France, Spain, Iran, Thailand, South Africa and the United Kingdom. Some enroll over half a million students. They are a reflection of the need in many countries to provide wider access to higher education without incurring the massive infrastructure costs involved in building new campuses. In his many speeches as Vice-Chancellor, Daniel often returned to what he referred to as the eternal triangle or the golden straightjacket of access, quality and cost. Unlike conventional universities that are constrained by their physical infrastructure, mega universities are constrained by the need to balance these three aspects. Increased access and flexibility for adults needs to be balanced with low costs and high quality. Although I did not identify flexibility as a theme for YCMOU, I recognized it as one of the tensions in coordinating the work of the university.

Mega universities follow what Peters (1993) described as an industrialized model of production. As Vice Rector of the Fern Universidad, Germany's open university, Peters recognized that while much of the writing in distance education had focused on the interaction between student and instructor, for there to be any economies of scale, the course production process needed to be industrialized. He, like Daniel, and Laurillard (1993) believed that it was important to be able to have an efficient system that was also pedagogically effective. The course team approach developed at the OU:UK is the basis for that approach. It involves teams of academic, professional and technical staff who work together to design a course so that the academic is not confined to a "content expert" role but is involved in the learning design, there is open discussion about the course which is jointly owned, and there is ongoing evaluation prior to its implementation. Some of this structure is evident at YCMOU in the writing workshops and in the expert consultations involved in the original design of a course. What was less clear to me was the involvement of the instructional designers; instead much seemed to depend on the abilities of the faculty in the school and their interest in alternative technologies. Remarkable strides had been made when these were aligned but when the faculty was more conservative and apprehensive about what was required to change, then innovation was less likely to occur.

One of the challenges for mega universities is that the world of large scale manufacturing from which this analogy comes has changed to a focus on diversified and just-in-time production, and niche market products. Conglomerates regularly divest themselves of all but their core business in order to obtain market advantage. Mega universities have adopted some of the same practices. YCMOU and other large-scale institutions contract out their study centre management. They have put in place regular monitoring of the quality of service and post the names of default centres on their website for students to see. Centres have to pay an annual fee to have their contract renewed. Another strategy has been to adopt programs from other institutions. While this might work on the North American continent, it is much more difficult when the materials are coming from a developed to a developing country or even from one language to another. However, if the circumstances are similar, then the costs of translation are less than the costs of initial production and the income losses from not meeting a market need. YCMOU, for example, has adopted an IGNOU baccalaureate program in Nursing to help it start that school. This is part of a standing arrangement for cooperation in the sharing of courseware among the Indian open universities.

Gupta, Kaushik and Garg (2003) in their paper on networking and partnerships for strengthening collaboration in ODL noted a variety of collaborations with conventional universities, with non-educational partners, with other state open universities and with international partners as ways IGNOU was working to help bridge the growing gap between need and resources. According to their figures there were 11 open universities and 102 correspondence institutes that catered to about two million students, about 20% of those in higher education. The government has put major emphasis on this area and the sector is expected to double to four million by 2007.

They mentioned the involvement of UGC and IGNOU in the development of the satellite-based two-way audio, one-way video system through INSAT that had government support and is shared with the state open universities including YCMOU. This has already given YCMOU the opportunity to provide a regular television program, a radio program on Mumbai AIR and an interactive radio-counselling program that is transmitted every fourth Sunday.

Another project was the collaboration between the International Centre for Crop Research in Semi-Arid Tropics, IGNOU, BRAOU, YCMOU and the M.S.S Swaminathan Foundation for the establishment of a virtual university of agriculture (VUSAT) that has begun at one of YCMOU's regional centres.

These ways of sharing costs and expertise were a factor in the development of a network of mega universities. In 2003, UNESCO sponsored a two-day meeting in Shanghai for presidents of mega universities. At it, a global network of mega universities (GMUNET) was formed to share information about quality assurance systems and mechanisms, ODL curriculum development, ICT and training, the realities of joint ventures, and policies on accreditation of each other's programs. The next meeting of the GMUNET will be in Delhi in 2005. All of these institutions felt they could benefit from "exchanging best practices, ideas, visions and innovative strategies to tap the potential of distance education, open learning and online teaching and learning in the provision of lifelong learning and development of a learning society" (UNESCO, 2003).

Much of the theoretical literature in distance education has focused on interaction and independence as seen in Moore's (1990) concept of "transactional distance." More recently the advent of interactive communications and digital technologies such as the Web has coincided with "the growing interest in new learning models that connect brain research, psychological models of active involvement and pedagogical developments and epistemological theories of meaning-making" (Haughey, 2002, p. 53). Interaction and constructivist learning as discussed in Garrison and Anderson's pedagogical model of distance education (2003) has come to the fore. The problem with this model is that it assumes that the instructor is the teacher of the course rather than someone to assist the learner with questions and issues. While it proposes a facilitator model for the group of students, it expects the instructor to lead the way rather than the students. In this it puts community and collaboration ahead of independence and self-study. As institutions like YCMOU begin to offer online courses, it will be important for them to develop models of learning that match their own values and desires for the learners.

Since the majority of universities offering distance education programs are conventional institutions with dual model programming, much of the writing on administrative issues refers to the problems of converting or adapting conventional procedures and traditions to include distance education. For many, distance education is managed by a separate unit or decentralized to be part of every faculty. In contrast, distance education is the raison d'être for the institution. This places the leadership of the organization in a much more visible position. Rumble (1992) noted that there was no single model that was most effective while Moore (1995) stressed the importance of trust in any organization that was going to use decentralization:

> A commitment to trust is mandatory if the leadership strategies of consensus management and decentralized operations are going to work—the paradox of trust is that by intelligently relinquishing power, one gains it back many times

> over. Once you reach your personal limits, this is the only economy of scale that can help—all hyper growth markets will push you to your personal limits faster than most challenges. (p. 237)

Much has been written in the current leadership about leadership but only the concept of distributed leadership would seem to provide guidance. Gronn (2002) proposed that distributed leadership was a means of involving others in adopting a proprietary interest and commitment in the well-being of the organization and its learners. In an organization that by virtue of its daily work is as loosely coupled and on the move as my case study suggests then distributed leadership may be the most effective means of sustaining interest in the overall mission of the institution.

According to Daniel (1998) the success of an open university depends on four criteria: Well-designed multiple media teaching materials, personal academic support to each student, efficient logistics to serve students and faculty who conduct research (¶ 7). Well-designed materials go back to the notion of the course team discussed earlier. One big difference between the operations of the BOU and YCMOU is that at the British Open University the faculty who write the programs are regular faculty while at YCMOU they are likely to be experts from conventional institutions who are working under contract. This has implications for the re/training of external faculty to work in a course team format and to understand the implications of the distance system for the learners.

Both the BOU and YCMOU employ course tutors to facilitate students' learning. At YCMOU, the students tend to come together and seek to be taught while in the BOU students do not have regular sessions to attend; instead they are assigned to a specific tutor and can contact them for advice and assistance throughout the course. In both cases having a personal guide is considered essential to learner success.

In terms of the third criterion, Daniel elsewhere commented that a huge learner support system relied on good logistics and administration to be effective. In this sense the bureaucracy somewhat decried by interviewees at YCMOU was actually required to ensure that things happened when they should. However, the complexity of this process and its enormous economic cost cannot be underestimated.

YCMOU like other mega universities had adopted contracts and partnerships to help obtain appropriate services for students. It had invested in its evaluation centre to see what economies of scale could be obtained. This is also an area of interest for the BOU which has also been exploring a computerizing marking system.

The criterion about faculty involvement in research partly reflects the requirement that the BOU do research if it is to be considered a university as laid out by the Quality Assurance Agency for Higher Education. However, staff motivation is particularly important in an organization as non-traditional as a distance education mega university. Hence, providing means and time to undertake a research program may be beneficial not only to the faculty members who can connect with work in their disciplines but for the students who will benefit from having professors who are involved in research as well.

CONCLUSION

The four themes discussed in this chapter form four pillars to a single mode open and distance education university. Shriberg (2002) in an analysis of the characteristics of higher education institutions in the literature identified seven characteristics. These were a diffusion of power, symbolic leadership, horizontal organizational responsibility, loose coupling, low levels of accountability, a complex mission and multiple cultural allegiances. In the end he concluded that organizational models that recognize diversity and complexity best describe universities. In contrast, the list provided by Ramakrishna (1995) highlights the differences between single mode distance education institutions and traditional universities. If anything, Ramakrishna contends that open universities are even more complex than their traditional counterparts and that one of the difficulties is that issues tend to be addressed by going back to the norm rather than thinking differently as is required by this very different structure. More recently, the concern for quality linked closely to economic self-sufficiency, and the impact of globalization and new technologies have further challenged this organization, requiring new models of partnerships and hence methods of coordination and evaluation. The four themes relate closely to these issues and are themselves interlinked. In this sense, YCMOU is not only an example of an open and distance learning institution, it is also an innovative model for addressing these themes and trying to keep the tensions among them in balance.

This chapter identified and discussed themes based on the issues and concerns expressed by the teaching and support staff at various tiers of the system and by students. The next chapter provides an executive summary of the study, some recommendations arising from the case study of YCMOU, and my own reflections about the process.

Chapter 9

OVERVIEW AND RECOMMENDATIONS

The main purpose of this research was to investigate administrative issues in implementing open and distance education in a large single mode institution, Yashwantrao Chavan Maharashra Open University. An extended case study investigation was conducted at all levels to study the perspectives of administrators, faculty, counsellors and students. This chapter provides an overview of the study's methodology and thematic findings. In the previous chapter I discussed the themes in relation to relevant literature and placed them in the context of the conceptual literature on distance education. Finally, I provide recommendations which arose from the literature and the study findings.

OVERVIEW

This study began with my interest in the issues in organizing and leading distance education institutions. I chose to study the distance education institution in my own state of Maharashra, partly because I knew so little about it, and partly because of my experiences as a student consultant providing workshops to various teacher education institutions that were simultaneously involved in providing services to distance education institutions. I chose to undertake a case study because it would allow me time to come to know the institution and its staff and to identify what issues were important to pursue. Before I began my case study, I took an online course as part of my program and I also discovered that YCMOU was advertising that it too offered online learning. This confirmed my choice of institution because I had decided that while much had been written about distance education, there was very little research on the administrative issues associated with the introduction of online learning in Indian institutions.

RESEARCH QUESTION

My guiding research question was: **What were the major administrative issues encountered and how are they being addressed in order to successfully implement online learning at YCMOU?**

In ethnographic case studies, the research begins with broad general questions, gradually narrowing the focus as the study proceeds. My initial questions were focused on the structure and context, how online learning came to be considered as an option and what considerations were involved, and then how it was being implemented and the issues that had surfaced. What I discovered was that the focus on online learning was somewhat premature. In my conversations with the third Vice-Chancellor, just prior to his departure, he tried to dissuade me from focusing on online learning. As I came to know YCMOU, I could see why he did so. No one was offering interactive web-based instruction in the way I was familiar with from my own courses, but I did discover that the university was involved in a variety of online initiatives despite the lack of a consistent infrastructure. Hence for much of my fieldwork, I stayed with the broader questions of administrative issues except in relation to those schools that had begun to implement online education.

CASE STUDY METHOD

There are many kinds of case studies and I chose to follow the work of Stake (1995) who proposed a qualitative study that was conducted in a natural setting where the researcher was "attempting to make sense of or interpret phenomena in terms of the meanings people brought to them" (p. 4). My first visit to Nashik, the location of the campus of YCMOU, was in December 2001 and I made regular visits to the campus and to four regional and six local centres over the course of my study. I concluded formal data-gathering in December, 2003 but have continued to add public information until August 2004.

YCMOU was conceived at the same time as Indira Gandhi National Open University but took four more years to obtain approval through the state legislature. Established on April 29, 1989, it was the fourth Open University in India and the third state university. Based on the most current figures, YCMOU has an annual enrollment of over 125,000 students and a sustained enrollment of approximately 700,000 students who can attend one of 1500 local centres with over 5000 teacher-counsellors (YCMOU, 2004).

FIELD WORK

Four experiences influenced my data collecting. First, although it had a large student body, there were only about 40 School-based faculty working at Nashik and many of those were traveling off campus to visit centres, give workshops and liaise with content experts and potential employers. This made it difficult to make appointments with them. Senior administrators were busy with the affairs of the institution and they, too, were difficult to meet. Even when appointments were made, they often had to cancel because of some other unforeseen circumstance. In addition, they too frequently traveled off-campus. This meant that although I had hoped to be very efficient in my data gathering, it was impossible to obtain more than one or two appointments in a three-day stay. As a result, I had a lot of time to read and study YCMOU documents and talk informally to anyone who had time for me. In this way, I gradually came to know how the institution operated. My trips to the regional and study centres were easier in that people willingly gave me their time and helped make arrangements for me to meet with students and counsellors. Most of the trips were on a Saturday or Sunday and I was conscious that I was potentially in conflict with the students' own time constraints.

My second experience was that no one was willing to be interviewed on tape. In the end, although I always brought along my tape-recorder, I grew used to taking notes and then reading back passages to people to be sure I had noted their words correctly.

My third experience grew from the fact that YCMOU was a three-hour drive from my home in Mumbai and the campus lacked adequate accommodation so I had to stay in Nashik and drive to the campus each day. This made me aware of the difficulty of access for students and staff. In addition, I chose to visit regional and study centres that were spread out across the state. In retrospect, I was unprepared for the invisibility of students, the distances involved, and the work patterns of faculty.

A fourth experience was that not everyone was willing to talk with me at length. Some passed me off to an assistant or referred me to the five-year plan. In general, not only were people uncertain about the use of an audio-recorder but also they said they preferred written surveys where they could choose what to write. I realized then that my questions about administrative issues at YMCOU while informational to me were seen as potentially political.

These experiences helped me live the reality of this open university. I found that the best way to obtain information was to have an initial interview and then follow up with another on a specific point, and yet another until the person trusted me enough to begin to talk about their work experiences and how they understood the workings of the university. I also recognized that I was beginning my study with the advent of a new Vice-Chancellor and that people were uncertain about how things would work out. Time was essential for them to come to know the new Vice-Chancellor.

While I undertook data gathering when I could, I was always involved in data analysis. I found myself going from interview data to the university's five-year plan or a similar document and then on to another interview and back to the original. This helped me cross-reference comments and place them in the context of the previous 13 years. I had periods where I could focus on the data, for example during the monsoon rains when there were few people on campus because it was also a summer holiday period. YCMOU's working hours are posted on its website—daily from 10 to 5.45pm except on Sundays, the first and third Saturdays and all government declared public holidays.

This study was completed under the approval of the University of Alberta Research Ethics Board. While the use of ethics approvals is common in North American research, in India with the emphasis on descriptive and statistical analysis, ethics reviews have not been common. Therefore, when I undertook this study, my potential participants were uncertain about what it meant to sign an ethics approval and what safeguards such a signature actually put in place. Many were unwilling to sign because they saw such an action within the context of their own work where people can be called to account for what they have signed, whether it is public or private correspondence. The longitudinal nature of my study was one result of this uncertainty. I had to spend considerable time with people, over many interviews, before they understood that they could trust me and that even though I verified what they had said, I was not going to quote individuals in my study without their consent. At the same time, I was increasingly aware of the difficulties that could arise for them if I disclosed their names and what they said. These cultural complications necessitated spending considerable time explaining the ethics principles and procedures, developing trust, and explaining the importance of confidentiality. The situation raises questions for the University of Alberta about the appropriateness of using the same ethics procedure in different cultural contexts.

CASE FINDINGS

I was fortunate to be able to interview three of the four Vice-Chancellors. From the interviews and YCMOU documents, I developed a history of the university based on the actions of the Vice-Chancellors and their five-year plans. This helped me see the personnel and credibility issues the university faced in its initial development and the problems of lack of financial support followed by rejuvenation under the third Vice-Chancellor. The university was awarded an Institutional Excellence award from the Commonwealth of Learning (COL) in 2002. Professor Takwale, the founder of YCMOU was also accorded an Honorary Fellow of COL in 2002 and received a Meritorious Service Award from the Association of Asian Open Universities (AAOU) in 2003.

The educational policy recommended by the Kothari Commission (1986) of introducing vocational technical education to cater to the masses was initiated at YCMOU. The university mission of reaching the disadvantaged in society and providing vocational and technical programs to help their employability was a bold and deliberate move to use the university for encouraging sustainable development but it was a commitment accepted by most of those to whom I spoke.

The schools were responsible for implementing this mandate and their programs reflected the mission. For example, the School of Agricultural Sciences (SAS) placed its emphasis on learning from each other and through practice. Rural farmers enhanced their own skills and shared their expertise with other farmers through a variety of self-help groups and established programs. The school placed a premium on vertical mobility so that employment opportunities were widened with each credential. The School of Continuing Education (SCE) had a similar variety of laddered programs but targeted the urban unemployed. It offered a wide range of introductory skills for industry and small business employment from traditional trades such as plumbing and carpentry, skills such as hair dressing, industrial sewing and fashion design to new occupations such as computer technicians. The school worked closely with industry and depended on cooperative institutions to provide training placements.

The School of Computer Science (SCS) offered a variety of post baccalaureate degree and diploma programs as well as a number of short-term job-oriented certificates in areas such as office computing, or computer operations. Their programs were in English although study sessions were available in both English and Marathi. Their study centres were computer centres approved by YCMOU and students were encouraged to visit a number of centres and see what computer facilities they had available before signing up. Their fees were more expensive than those charged in the School of Continuing Education reflecting the market and materials involved. The School of Science and Technology programs were in two areas: Electronics and Mechanical Engineering. Like the SCS, it also has a variety of short diploma and certificate courses and these are laddered to encourage vertical and horizontal mobility. The School of Health Sciences (SHS) begun in May 2003 was in response to an employment shortage of primary healthcare workers, and skilled nursing assistants and the school's mandate was to shortages and gaps in the healthcare field. Its first program was a baccalaureate degree in Nursing.

In contrast, the School of Education focused on the upgrading of the skills of certificated teachers to obtain graduate and undergraduate degrees as well as specialist certificates and professional development. Its target group was already-employed teachers in rural areas and to meet accreditation requirements it was restricted in the number of students it could enroll.

In terms of online education, most schools had adopted a number of online initiatives but others like Agricultural Sciences had no plans to go online beyond having a web page with all their programs and requirements available. Only the School of Commerce and Management did not have a web page. Schools were generally supportive of the possibilities of online but recognized that the infrastructure especially in rural areas made a complete move to online unlikely for some five to ten years. In some areas such as computer science and engineering, the schools were less concerned about the students' technical skills than in education, for example, where this was a concern.

Both SCS and SST had begun to offer online applications for admission in selected programs. Computing Science maintained an online information page for study centres and students where notices were posted. It included requests for information and late receipts that were required as well as prospectuses for courses and dates of examinations. It was evident from some of the postings that the changes were due to requests from the study centres themselves. Both programs had end of chapter or unit self-help tests available online which provided the student with instant feedback. SST, SCS and SOE provided discussion forums where students, counsellors and coordinators could post queries and answers in a threaded discussion format that had a keyword search feature. Most schools also used virtual classroom modules, essentially audio or video lectures by an expert on a particularly difficult topic in the course. Students could access these through their use in the contact sessions, or at the study centre, or from the Internet. In addition, students could email the schools directly with queries. Teacher counsellors hired for this purpose monitored and responded to the discussion forum and email queries. Plans included online pre-registration counselling, more program information materials and an online study centre guide for students and staff.

Other areas where computerization had aided efficiency included the library which had all its resources catalogued online. The student evaluation centre had automated the selection of examination questions from regularly reviewed databases of questions. It had also set up selected final examination questions and synoptic answer possibilities which students could access. The university recently installed a 200 node, three server local area network (LAN) and plans to link all the regional centres to it as part of its plan to decentralize services.

The most recent initiative is the use of satellite-based interactive programming where selected sites with transponders will be able to receive counselling sessions and students can pose questions through a phone line. This is already underway with new study centre sites in computer science being asked if they had the interest and capability to be a virtual study centre. In addition, staff members in the School of Continuing Education are converting the content of over 1000 course textbooks into an e-audio format to provide a web "radio" facility (Mahajan, Sonone & Gujar, 2003). Usually students rent rather than purchase texts, and have limited access to library support materials and so this would allow them greater access to the content and may well encourage them to work through materials by listening on a regular basis.

The regional and local study centres were crucial to the infrastructure of YCMOU. Unlike regional centres which involve facilities rented by YCMOU and are staffed by university employees, study centres are independent educational institutions or businesses which bid to provide the services under contract. Study centres generally support only one school's programs. They provide space, and facilities and hire the teacher counsellors. They are responsible for assisting students with their program and academic concerns. Regional centres coordinate and monitor the work of the study centres.

Each school was required to work with the regional centres to ensure that its students were registered, and that there were sufficient and appropriate study centres and counselling staff. The schools involved themselves to a greater or lesser extent in the choice of study centres and the employment and retention of their faculty. They visited their study centres and provided in-services and training for the faculty. There was some disaffection over the alignment of roles between the regional and study centres and between the regional centres and the schools. Some schools circumvented the regional centres because they thought they were too slow in providing feedback and they preferred to obtain it more directly from faculty or coordinators. Regional centres saw themselves as being responsible to resolve difficulties but felt excluded from the activities such as poor student advising that led to the problems. Their own staffing arrangements further hobbled them.

Based on the information provided and my own observations, I identified four themes that seemed to encapsulate the multiple meanings held by my participants and were ultimately my own interpretation. These were sustainability, organization, quality and learner support systems. In each case, the theme has sub-themes that contain evident tensions that need to be kept in balance. Together, they also reflect the complex organizational realities of administering a single mode open and distance education institution that is also a mega university. instructional media where a technology plan could help to document what YCMOU plans to achieve. The mission statement and its close link to sustainable development means that there are multiple stakeholders so that academic credibility and accreditation has to be guarded while seeking public support and participation.

Quality involves the presence of quality in the mission statement and the ongoing objectives of the schools and its actual implementation through quality assurance activities in some schools. These included in-services and training of staff, monitoring the work of the centres, and standards set by external bodies. Other initiatives were the enhancement of course materials and the use of teamwork and shared accountability. Some schools more than others recognized the importance of professional development as a means to continuous improvement.

Organization includes issues of structure, coordination and partnerships. Mega universities have a relatively flat structure but work closely with and depend on part-time contract faculty to provide services to students. Each school has its own network of centres that overlaps usually at the regional centres. Decentralization to the regional centres would require role clarification and needs analyses of their workloads to be sure that the system will be able to manage. Partnerships are an integral part of the structure of these organizations and hence coordination and evaluation of services needs to be ongoing.

Learner support systems require a holistic approach to this essential service. It involves most of the people in the organization in some capacity from course development and production to registration and accounting as well as counselling and handling student problems. Therefore it can be highly labor intensive. It is required to be efficient with clear communication among the parts and written agreements about process. Hence it needs to have a built-in monitoring function to ensure that the logistics flow smoothly. On one had the system has to be routinized and highly delineated and on the other it needs to be highly personal and responsive to individual students' concerns. The system also has to take into consideration the socio-cultural realities of the students' academic lives so that the system supports them in their search for success.

RECOMMENDATIONS

Based on the issues related to the four themes in the study, I make the following recommendations. I do so with the knowledge that despite my time on site I may not have understood as fully as I might the complexity involved in administering a mega university and introducing online learning. I have organized the recommendations in relation to the four themes identified.

SUSTAINABILITY

Two areas that might be given more consideration are the recruitment and retention of staff and a different approach to planning.

1. YCMOU should consider strategies to obtain a greater allocation of faculty from the state government. Besides this straightforward approach, the university might consider other ways in which faculty might be shared among universities.

2. Mentoring new faculty is essential to being an effective organizational member so that it is particularly important that YCMOU give time and attention to

providing not only initial orientation but ongoing professional development opportunities to help faculty become attuned to the possibilities of distance education rather than relying on them learning on the job. One senior administrator always mentioned that it is being at the level of one's comfort zone.

3. Perraton (2002) discusses that "framing a coherent policy requires the decision maker to take a view about the balance between individual and social benefits." Decisions according to Perraton need to be influenced by perceptions about the value of distance teaching institutions—"perhaps mainly in terms of their contributions to workforce development—and about their political strength and influence" (p. 48). These issues are taken into account in the university's present planning and policy cycle. The university is required to do five-year plans and these tend to build on the one before. They are essential for obtaining funding and the university needs to be aware of what the underlying political currents are in order to be able to be seen to ride the wave. At the same time, the university needs to do some backwards casting (Martin &Hall,2002) This is when the university planners decide what the future should entail and then work backwards to identify what needs to be done to get there. Such a vision would be helpful in giving YCMOU a larger sense of what its own vision might be, help in discussions with government and in making decisions that best help it reach these goals.

4. Part of that process should focus on instructional media and include a technology plan. Institutions must keep up with the challenges of new technologies. According to Daniel (1998), "anything that changes the relationship between people and knowledge has very important implications for the university" (¶ 11).

QUALITY

Quality assurance was a concern of the mega universities who now belong to GMUNET but it has been a long-term preoccupation of YCMOU. According to Stella (2002), India's present external quality assurance system began in 1994 but India already had a system of accountability, inspection, audits and accreditation in place due largely to the legacy of the British.

5. However, while YCMOU has several monitoring strategies in place, it might be beneficial to share these and seek some regularity in order to be able to obtain data for comparison purposes.

6. In the YCMOU system, the centres are the face of the university and the quality of the local reputation needs to be safeguarded through effective evaluation systems. There needs to be a sustainable local image that students interpret as an indicator of quality.

7. While YCMOU needs to ensure effective quality management systems are in place, it must find a balance between external accountability and internal improvement. One strategy is to use benchmarks but avoid a single blueprint approach.

8. For a quality assurance system to be effective it must involve those affected in the identification of the indicators and they should see how they could use the data they generate to improve their own performance.

ORGANIZATION

YCMOU has developed a complex four-tiered system that is growing rapidly. As with all systems, it needs both leadership and coordination.

9. In an organization that stresses openness to students and ideas, it is important that administrators be open to new ideas and able to develop trust among the members of the organization. This is essential when the organization has decided to decentralize functions to the centres. If there is a lack of trust among the parts of the system, then decentralization is likely to fail. Site-based management requires the same clear communication and reporting processes that are required for quality assurance.

10. The university should continue to explore partnerships and streamline processes that encourage better communication among schools and regional and local study centres.

LEARNER SUPPORT SYSTEMS

YCMOU's learner support system reflects the strong interest of the faculty in ensuring that students have the means to achieve success. At the same time there are areas which could receive more attention. It has to be noted that it should not a one size fit all approach within the institution. There are different needs by different schools, and the needs and concerns of regional and study centres differ based on the learner needs, hence one has to carefully identify and select what is relevant.

11. Greater emphasis might be placed on helping students understand the difference between self-study and the form of teaching with which they are most familiar. They need to be given skills and study strategies that will help them be successful.

12. To ensure student success as independent learners, more training should be provided to the teacher counsellors who need to understand how to run sessions that students will enjoy and where teachers too can achieve success.

Daniel (1998) whose work on mega distance education universities has brought the problems faced by these contemporary institutions to the fore, notes:

> One of the biggest challenges facing administrators and educators is to rethink what constitutes education. The university or college of the 21st century will not be a repository where students come for learning. It has become increasingly clear that students are capable of learning without the physical presence of a teacher. Advances in educational technology are forcing administrators and faculty to contemplate different modalities for course offerings especially distance delivery. In a highly competitive, global market place, students are no longer limited or confined to local universities. To continue to be relevant and accessible, higher education must be creative in and receptive to alternative approaches to education. (¶ 7)

In discussion with an administrator at YCMOU, he acknowledged that it was a quite task to maintain a balancing act in leading such a large and complex organization with its bureaucratic, collegial and entrepreneurial components. His analogy, however, was even more daring; "its as if standing at the edge of the sword," he suggested.

There are many lessons to be learnt from exploring the administration of large-scale open and distance education universities.

REFERENCES

Albreicht, R. & Bradsley, G. (1994). Strategic planning and academic planning for distance education. In B. Willis (Ed.), *Distance education strategies and tools* (pp 67-86). Englewood Cliffs, NJ: Educational Technology Publications.

Baath, J. (1982). Distance students -learning, empirical findings and theoretical deliberations. *Distance Education, 3*(1), 6-25.

Bansal, K.& Chaudary, S. V. (1999). Interactive radio for supporting distance education: An evaluation study. *International Journal of Open Learning*, 8(1), 61-71.

Bates, A. W. (2000). *Managing technological change*. San Francisco, CA: Jossey-Bass.

Birnbaum, K. (1998). *How colleges work: Cybernetics of academic organizations and leadership*. San Francisco: Jossey Bass.

Bodgan, R. C. &. Bilken, S. K. (1982). *Qualitative research for education: An introduction to theory and methods* .Boston, MA: Allyn & Bacon.

Broekhuis, M. & Vos, F. J. (2004). *Improving organizational sustainability using a quality perspective*. Paper published by University of Groningen, Research Institute SOM. Retrieved September 20, 2004 from http://ideas.repec.org/p/dgr/rugsom/03a43.html

Chaffee, E. E. (1985). *The concept of strategy: From business to higher education: Handbook of theory and research*. New York: Agathon.

Cohen, M. D. & March, J. G. (1974). *Leadership, ambiguity*. New York: McGraw Hill.

Cohen, M. D., March, J. G., & Olsen J. P. (1972). A garbage can model of organization and choice. *Administrative Science Quarterly*, 17, 1-25.

Creswell, J. (1998). *Qualitative inquiry and research design-choosing among five traditions*. Thousand Oaks, CA: Sage Publications.

Croft, M. (Ed.). (1991). Report on Round Table on Student Support Services. The Commonwealth of Learning, Vancouver.

Daniel, J. (1996). *Mega universities and knowledge media: Technology strategies for higher education*. New York: Kogan Page.

Daniel, J. (1999). Open Learning and or Distance Education: Which One? For What purpose, in Harry, K. (Ed.) *'Higher education through open and distance learning' World review of distance education and open learning*. London Routledge, 292-8.

Daniel, J. S. & Marquis, C. (1983). Interaction and independence: Getting the mixture right. In Sewart, D., Keegan D., & Holmberg, B. (Eds.) *Distance education: International perspectives*. Bekenham, KY: Croom Helm.

Dastane, M. (2002). Maharashtra Times, Supplement, p. 3, Pune, India.

Distance education council. (2001). *A report*. [Report]. New Delhi, India.

Daniel, J. & Marquis, C. (1983). *Interaction and independence: Getting the mixture right*. Bekenham, KY: Croom Helm.

DeLong, S. E. (1997). The shroud of lecturing, *First Monday*. Retrieved August 12, 2003 from http://www.firstmonday.dk/issues/issues2_delong/index.html

Deming, E. (1986). *Out of the crisis*. Cambridge, MA: MIT.

Denzin, N. L. (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.

Denzin, N. & Lincoln, G. (1994). *Handbook of qualitative research*. Thousand Oaks, CA: Sage.

Deshpande, P. M. (1995). 'Keynote address: quality assurance- distance education issues in Rao, M.S et al (Eds.) Quality assurance in distance education, Hyderabad, Centre for Evaluation, BRAOU, pp 11-18.

Dhanarajan, G. (2003). Best practice: Then and now-valedictory address, In V. S. Prasad, V. Venkiah & G. Sreenivasacharyalu (Eds.). *Best practices in open and distance education*, Hyderabad: GRADE, Dr B.R Ambedkar Open University.

Distance Education Council. (2001). Distance education council. *A Report*. (January). [Report]. New Delhi, India: DEC.

Dyer, J. R. (1979). *Understanding and evaluating educational research*. Reading, MA: Addison-Wesley.

Economic Times. (2000). July 12th 2000, p. 3.

Evans, J. R. & Lindsay, W. M. (1999). *The management and control of quality*. St Paul, MN: West Publishing Company.

Farell, G. & Haughey, M. (1986). The future of open learning. In I. Mugridge & D. Kaufman (Eds.), *Distance education in Canada* (pp. 30-35). London: Croom Helm.

Farell, G. M. (2001). *The changing faces of virtual education*. Vancouver, Canada: COL Publication.

Foster, G. (1992). *Lessons from teamwork: Towards a systemic scheme for course development. Higher education, vol.24, pp 193-211*

Fox, R., Herrmann, A. & Boyd, A. (1999). Breaking the grip of print in distance education. *In proceedings of the open and distance learning association of Australia*. pp. 153-7.

Garje, C. V. & Rastogi, B. S. (1995). *Managing study centres: A challenging task before YCMOU*. In Indira Gandhi national Open University, Structure and management of open learning systems proceedings of the Eighth Annual Conference of the AAOU, New Delhi, Feb 20-22, Vol. (2) pp117-22.

Garrison, R. D. (2001). Theoretical Challenges for Distance Education in the 21st Century, A shift from structural to transactional issues. *International Review of Research in Open and Distance Learning*, 1(1), 17.

Garrison, D. R & Shale, D. (1990). *Education at a distance: From issues to practice*. Melbourne, Fl: Krieger.

Garrison, R. (1987). Mapping the boundaries of distance education: Problems in defining the field. *American Journal of Distance education*, 1(3), 13-24.

Glesne, C & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.

GOI (2002), Ministry of Education, Retrieved June 2003 from http://education.nic.in/html.web/edusta.htm

GOI (2001), Tenth five-year plan, New Delhi, India.

GOI (2000), Eighth five-year plan, New Delhi, India.

Green, G. (1996). Geogahaen In. De Long., S.E. (1997). The shroud of lecturing. *First Monday*. Retrieved November 3, 2004 from http://www.firstmonday.dk/issues2_5/delong/index.html

Graff, K., Saxe, B. & Ostlyngen, E. (1966). *Correspondence education in Europe today. CEC Yearbook 1966*. Lincoln, Croom Helm: CEC.

Grenville, R. (1992). *The management of distance learning systems. Fundamentals of educational planning*. Report for the United Nations educational, scientific and cultural organizations (UNESCO). Paris: International Institute for Educational Planning.

Guba, E. & Lincoln, Y. (1982). Epistemology and methodological basis of naturalistic inquiry. *ECTJ*, 30(4), 223-252.

Gumport, P. J. & Sporn, B. (1999). Institutional adaptation: Demands for management reform and university administration in Smart, J. C. & Tierney, W. G. (Ed.) *Higher education through open and distance learning* (pp. 72-89). London: Routledge.

Haricharan, D. (1995). *Working of the study centers: A comparative study of two open universities*, Media Technology for Human resource development.

Haughey, F. (1986). The future of open learning, In I. Mugridge & D. Kaufman (Eds.) *Distance Education in Canada* (pp. 30-35).

Haughey, M. (2000). *A global society needs flexible learning* (pp. 11-29). London: Routledge.

Haughey, M. (2003). Planning for open and flexible learning. In S. Panda (2003) (Eds.) *Planning and management in distance education* (pp. 53-62), London and Sterling, VA: Kogan Page.

Holmberg, B. (1989). Status and trends of distance education (2nd Ed.). Lund: Lector Publishing.

Holmberg, B. (1995). *Theory and practice of distance education, Routledge studies in distance education*. New York: Routledge.

Indian television (2001), Retrieved Saturday, 31st March 2001 from www.indiantelevision.com/indianbrodcast/history/historyoftele.htm

INOMY. *Internet economy of India*. Retrieved August 2003 from www.inomy.com

Kanwar, A. & Jagannathan, N. (1995). *Speaking for ourselves: Women and distance education in India*, New Delhi, India: Manohar Publishers and Distributors.

Keegan, D. (1982). From New Delhi to Vancouver, trends in distance education In J/ Daniel, M. Shroud & J. Thomson (Eds.) *Learning at a distance: A world perspective* (pp. 40-43). Edmonton, Canada: Athabasca Unversity.

Keegan, D. (1986). *The foundations of distance education*. London; Dover, N.H; Croom Helm.

Khan, A. (2001). Indira Gandhi open university and distance education council: Institution and system building in India, In C. Latchem & D. Hanna (2002), *Leadership for 21st century, Learning global perspectives from educational innovators*. New York: Kogan Page.

Koul, B. (1996). Quality assurance practices and principles: The case of Indian distance Education In A. Tait (1997), *Perspectives on distance education - Quality assurance in higher education: Selected case studies*. Vancouver, Canada: The Commonwealth of Learning.

Laurillard, D. (1993). *Rethinking higher education*. London: Routledge.

Leninger, M. (1985). *Qualitative research methods in nursing*. New York: Grune/Stratton.

Lincoln, Y. & Guba, E (1985). *Naturalistic inquiry*. London: Sage.

Madan, V. D. (1997). *Systematic research and performance indicators in open and distance learners*. Paper presented at the International Council of Distance Education, Pennsylvania State University.

Madu, C. N. (2003). *Competing on quality and environment*. Fairfield, CT: Chi Publishers.

Manen, V. (1990). *Researching lived experience, human science for an action sensitive pedagogy*. New York: State University of New York Press.

Mani, G. (1990). Problems unique to distance education. In M. Croft, I. Mugridge, J. S. Daniel & A. Hershfield (Eds.). *DE: Development and Access* (pp. 127-9). Caracas. International Council for Distance Education/Fondo Editorial Universidad Nacionai.

Mukhopadhayay, M. (2004). *Quality management in multi-channel learning system* Paper presented at The National Workshop on " Quality Assurance in Flexible Higher Education: Approaches and Strategies" YCMOU, Nashik, July 13th-15th 2004.

Markowitz, H. (1990). Distance education staff handbook, Urbana II: Office of continuing education and public services.

Madan, V.D. (1997). *Systematic Research and Performance indicators in Open and Distance Learners International Council of Distance Education*. PA: Pennsylvania State University.

Martin, S. & Hall, A. (2002). Sustainable development and the professions, *Planet*, 3, 17-18.

Mason, R. (1994). *Old world visits new. Innovations in education and training international*, 33(1), 68-9.

Mason, R. (1996). Large scale distance teaching and the convergence of telecommunications & multimedia. In C. McBeath & R. Atkinson (Eds.) *The learning superhighway proceedings of the third interactive Multimedia symposium*, Perth, Western Australia, 21-25, January

Merriam, B. S. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey Bass.

Moore, M. (1990). Recent contributions to the theory of distance education, *Open Learning*. 5(3), 10-15.

Moore, M. G. (1973). Towards a theory of independent learning and teaching. *Journal of Higher Education*, 144, 661-679.

Moore, M. & Kearsely, G. (1996). *Distance education: A systems view*, New York: Wadsworth.

Morris, A. (July 2000). *New Paradigm for Distance Education: Tools for five small states* Retrieved August 2001 from www.col.org/resources/publications/smallstates.

Conference: Distance Education in small states, pp 27-8, Morris. pdf. Kingston, Jamaica, UWI/COL, 2001.

Naik, J. P. (1978). *Equality, quality and quantity*. Bombay, India: Allied Publishers.

Nickerson, R. S. (1988). Technology in education in 2020: Thinking about the not distance future. In R. S. Nickerson & P. Zodhiates (Eds.). *Technology in education: Looking toward 2020*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Overland, M. (2000). *The chronicle of higher education. Times of India.* August 23, 2000. Mumbai, India.

Owens, R. (1982). Methodological rigor in naturalistic inquiry: Some issues and answers. *Educational Administration Quarterly*, 18(2), 1-21.

Panda, S. K. (1999). *Open and distance education - policies, practices and quality concerns*. New Delhi, India: Aravalli Books International.

Panda, S. (1999). Developments, networking and convergence in India. In K. Harry (Ed.) *Higher Education through open and distance learning: World review of distance education and open learning.* London: Routledge.

Panda, S. & Mc Isaac (2003). *Developing a distance education system in an International context.* Retrieved August 08, 2004 from http://asuonline.edu/stream/transcript.cfm?id=71

Patton, M. Q. (1990). *Qualitative evaluation and research methods.* (2nd ed.). Newbury Park, CA: Sage.

Paul, R. (1990). *Open learning and open management - leadership and integrity in distance education.* New York: Kogan Page.

Penfield, P. Jr. & Larson, R. C. (1996). Education via advanced technologies. *IEEE Transactions on Education,* 39(3), Aug.

Perraton, H. (2000). *Open and distance learning in the developing world.* London: Routledge.

Peterson, M. W. & Dill, D. D. (1997). Understanding the competitive environment of the post secondary knowledge industry. In M. W. Peterson et al (Eds.) *Planning and management for a changing environment: A handbook on redesigning post-secondary educational institutions.* San Francisco: Jossey Bass.

Peters, O. (1993). Distance education in a postindustrial society, In D. Keegan (Ed.) Theoretical *principles of distance education.* London: Routledge.

Powar, K. B. (2004). *Quality in governance: Key to a cost effective open and distance learning system*
Paper presented at The National workshop on " Quality Assurance in Flexible Higher Education: Approaches and strategies" YCMOU, Nashik, July 13th-15th 2004

Powar, K. B. (1996). *Accreditation in higher education: An Indian perspective.* New Delhi, India: Viva Publishers.

Ramakrishna, R. &. Pushpa, C. (1995). Management of distance teaching institutions: The staff development perspective, in IGNOU structure and management of online systems, proceedings of eighth Annual conference of Asian Association of open universities, New Delhi, India, Feb 20-22, Vol. 1, pp 245-59.

Rao, D. (2001). *Times of India,* Pune Supplement, p.3, August.

Rao, M. S. & Mohanraj, J. (1995). *Quality Assurance in Distance Education* Hyderabad, India: Centre for Evaluation, BRAOU.

Reinert, B. R. & Fryback. P. B. (1997). Distance learning and nursing education. *Journal of nursing education* 36(9), 421-427.

Rist, R. C. (1982). On the application of ethnographic inquiry to education: Procedures and possibilities. *Journal of research in science and teaching,* 33(1), 439-450.

Reddy, V & Srivastava, M. (2000). *The world of open and distance learning*, New Delhi, India: Vikas Publishing.

Reddy, V & Srivastava, M. (2002). *Towards virtualization- open and distance learning.* New Delhi, India: Kogan Page.

Robin, M. (1998). *Globalizing Education Trends and Applications.* London: Routledge.

Robinson, B. (2004). Inside and outside the UK quality assurance box: Some issues for open and distance learning. In *Learning and Teaching in Action.* 3(2), 18-21. Retrieved October 8 2004 from
www.itu.mmu.ac.uk/itia/issue8/robinson.html

Robinson, B. (1994). *Ensuring quality in the planning and development of distance learning courses.* Paper presented at the international conference in distance learning, Colombia Sept 20-22 1994.

Robinson, B. (1998). *A strategic perspective on staff development.* London: Routledge.

Rumble, G. (1986). *The planning and management of distance education.* London: Croom Helm

Rumble, G. (1992). The management of Distance Learning Systems, Fundamentals of Educational Planning, 43 Report for the United Nations Educational scientific and Cultural Organizations (UNESCO), International Institute of Educational Planning, Paris.

Rumble, G. & Keegan, D. (1982). *General characteristics of distance teaching universities.* **pp 9-14. {If this is a book, the pages aren't needed, but the city and publisher are}**

Rumble, G. & Latchem, C. (2004). Organizational models for open and distance leaning. In H. Perraton & H. Lentell (Eds.), *Policy for open and distance learning*. New York: Routledge: Falmer.

Sabale, P. (2003). Monday, July 21.

Santosh, P. (1999). *Open and distance education -policies, practices and quality concerns*. New Delhi, India: Aravali Books International.

Schreman, E., Teare, S. & McLaren, J. (1992). Towards a course development model for graduate level distance education. *Journal of Distance Education*, 7(2), 51-65.

Senge, P. M. (1990). *The fifth discipline: The art and practice of learning organization*. New York: Doubleday.

Sharma, R. (1999). Networked distance education in India. *Indian Journal of Open Learning*, 8(2), 147- 56.

Sharma, R. (Jan 2001). Online delivery of programs: A case study of IGNOU. International Review of Research in Open and Distance Learning, 1,2. Retrieved August 20, 2004 from
www.icaap.org/iuicode?149.1.2.1

Sharma, G. D. (1995). *Indicators of performance of universities and some empirical evidence*. New Delhi, India: National Institute of Planning and Administration.

Shrieberg, M (2002). Sustainability in US Higher Education organizational factors influencing campus environmental performance and leadership. (Doctoral dissertation, University of Michigan, 2002).

Srivastava, M. (2000). 901, 8th 5 year plan. pp 207. The world of open and distance learning. New Delhi, India: Vikas Publishing.

Srivastava, M, & Reddy, V. (1999). *Distance education in India: A model for developing countries*. New Delhi, India: Vikas Publishing.

Srivastava, M. & Reddy, V. (1999). *Unexplored dimensions of open universities*. New Delhi, India: Vikas Publishing.

Srivastava, M. (2002). A comparative Trends in Distance Education in Canada and India. *Turkish online Journal of Distance Education, TOJDE*, October 2002, ISSN 1302-6488, Vol. 3 Number 4, pp 1-11. Retrieved September 17, 2003 from
http://tojde.anadolu.edu.tr/tojde8/articles/srivastava.htm

Stake, R. E.(1995). *The art of case study research*. CA: Sage Publications.

Steeubert, H. & Carpenter, D. (1995). *Qualitative research in nursing: Advancing the humanistic imperative*. Philadelphia: JB Lippin Coff.

Stella, A. (2002). External Quality assurance in Indian Higher Education: Case study of the National Assessment Accreditation Council (NAAC), IIEP (International Institute for educational Planning) UNESCO, Paris.

Stella, A. (2004). *External quality assurance in Indian higher education: Developments of a decade, quality in higher education*, July 2004, vol.10, no.2, pp 115-127. Retrieved September 20, 2004 from http://www.ingenta.com/isis/searching/Expand/ingenta?pub=infobike://carfax/cqhe/2004

Stella, A. (2004). *Performance Indicators for effective institutional self-appraisal in the ODL System*
Paper presented at The National Workshop on " Quality Assurance in Flexible Higher Education: Approaches and Strategies" YCMOU, Nashik, July 13th-15th 2004.

Stella, A. (2001). *Quality assurance in Indian higher education: issues of impact on future perspectives*. New Delhi, India: Allied Publishers.

Takwale, R. (1996). Open and distance education in India. *Kakatiya Journal of Open Learning*, 2(1) Jan-June, 57-72.

Takwale, R. G. (1993). *Technical and vocational programmes of YCMOU* [Brochure]. Nashik, India: YCMOU.

Takwale, R. G. (1994). *Status and innovation development of YCMOU* [Brochure]. Nashik, India: YCMOU.

Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. New York: Falmer Press.

Venkiah, V. (2004). Enhancing Quality in Learner support services. Paper presented at The National Workshop on "Quality Assurance in Flexible Higher Education: Approaches and Strategies" YCMOU, Nashik, July 13th-15th 2004.

Waddock, S. & Boldwell, C. (2002). From TQM to TRM. Total responsibility management approaches. Journal of Corporate Citizenship 7 (Autumn 2002): pp 113-26.

Wedermeyer, C. (1981). *Learning at the backdoor*. Madison, WI: University of Wisconsin Press.

Weick, K. E. (1975). *Educational organization as loosely coupled system.* Administrative Science Quarterly, 21, 1-19.

Yadav, M. S. & Panda, S. K. (1995). Distance education system in India: An appraisal of effectiveness and feasibility. In D. Sewart (Eds.), *One world many voices: Quality in open and distance learning*, Vol. 16.1, ICDE & The Open University, Milton: Keynes, 193-6.

YCMOU. (1998). *Handbook and profiles*, [Brochure]. Nashik, India.

YCMOU. (May 1992). *Eighth plan proposals*, [Proposal]. Nashik, India.

YCMOU. (2002-2007). *Tenth plan proposals*, [Proposal]. Nashik, India.

YCMOU. (1997-2002). *Ninth plan proposals*, [Proposal]. Nashik, India.

YCMOU. (1997). *Annual Report*, [Report]. Nashik, India.

YCMOU. (2001). *Annual Report*, [Report]. Nashik, India.

YCMOU, (2002). *SOE*, [Brochure]. Nashik, India.

YCMOU, (2002). *SAS*, [Brochure]. Nashik, India.

Yin, R. (1994). *Case study research: Design and methods (revised).* Beverly Hills, CA: Sage.

APPENDIX A

Survey

I am a Doctoral student from the university of Alberta, Department of Educational Policy Studies. I am planning to conduct a case study on the administrator's issues and concerns in the development of online learning at YCMOU.
Although this study focuses on the issues of online education, it would also look into the transition of multimedia technologies in a program at this university.
The case study design, using semi-structured interviews seems an appropriate method for the purpose of inquiry in this study.
The administrators and the researchers to be interviewed possesses the necessary information required for the purpose of this study and they shall feel free to share this information. The academic issues pertaining to management of distance education at the three levels: center-regional centres and the study centres, will provide appropriate guidelines
I wish to collect relevant documents, make field notes and conduct semi-structured interviews. Prior to which I intend sending surveys to the heads of divisions at YCMOU.

Your cooperation and information provided will add meaning for this study.
The survey is divided in three phases
First phase – is based on the personal information
Second phase –academic and other qualification
Professional qualification and contribution- in education and distance education
Once I gather information from the heads , I also intend sending questionnaire to students to gather additional data on their views on online education-their issues and concerns.

Please noted as stated in my consent letter-the data collected will be strictly confidential and in no way the names of the participants will be disclosed throughout the study

Personal Information:
Name:

Age:

Position

Place of residence-

Institution working

From -------- to ------------ No of years (in this institution)

Previous institutions

Total no of work experience:

Semi-structured Interviews for Administrators:

This is a survey conducted for the purpose of inquiry on the issues and concerns of administrators on the development of online education. Your replies will be strictly confidential and I intend to use this only for my research study. I would prefer an honest and thoughtful reply as this will help not only this university but the other ten open universities.

As stated above your answers will throw light on the issues faced on the development of online learning. If you find this space not enough to write the answer you can write them in a separate response sheet

Which Department in this university offers diploma, certificate as well as degree programs both by distance and online?

Discuss the role of YCMOU in the development of online education

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Describe your role in the development of online education?

Was there any major changes in the implementation of online education as compared to the distance education programs

What programs(courses) are offered in your department?

Can you describe changes that has taken place in the last three years in this university

When did the university decide to offer programs online and how was this decision made?

Prior to starting this programs online did you conduct a survey to see the response of students opting programs online?

Were the faculties consulted before implementing online programs?

Discuss your role in the development of course materials and delivery of courses online?

How is the coordination between these centres- center- regional center and study center made?

What type of online programs is offered?

Are their concerns regarding online education?

In what form do you expect cooperation from staff and technical experts in implementing this program?

What have been the advantages on implementing this program?

Do you have some concerns?

How is this program funded? Do you cover the cost through student fees?

Is this program cost effective for the university as well as the students?

____

What are some of the students needs taken into consideration prior to implementing the
program online?

____

Are there continuous feedbacks to improvise this program?

____

What is the future of online programs in this university?

____

Describe the role of regional and study centres in implementing this program?

____

Interview questions for Teachers:

This is an interview for the faculties involved in teaching the programs online. Your responses will be strictly confidential and in no time will the identity disclosed. Your responses will provide insight for the research study. The interview will be conducted at the center, regional centres and study centres. It would be appreciated if you could provide detailed information as it would throw light on your issues and concerns in the teaching programs of online education

Describe briefly your role in this University as an instructor?

How long have you been in this university?

What changes have you seen since then?

Which programs are offered online?

Are you involved in teaching programs online?

Can you state your concerns in this online program?

How long have you been teaching?

What training facilities were provided to teach online?

What's your opinion regarding the course materials pertaining to online?

How are the courses developed?

Have you been involved in the designing/ development of course materials?

Describe your views on student feedback?

What are the ways you interact with your students?

How do you collaborate with other faculties?

What time factor is taken into consideration?

In which other areas you feel the program can be improved?

Do you have any further suggestion or comments regarding this program?

Student Questionnaire:

Hello students,
This is a study on the issues related to the implementation of online education. Since you are the main consumer of this program. Your views and feedback will help the administrators and faculties to provide the best.

You may be a first year student or a final year student, yet the responses provided will be of immense help to the researcher. A little time taken will provide a huge gain for the near future not only to you but to other students opting for online education.

How did you learn about this program?

____

How long did you take to decide to take this program online? In what way did you get help?

____

Describe certain loopholes regarding this program?

What difficulties (if any) did you experience in accessing the YCMOU web site?

How confident are you in using online independently on your own?

How satisfied are you with the programs?

Discuss the role of counselor in this program? How significant is it for you?

What is the role played by your center-with regards to providing access?

How do you access this program?
(from home? From work, center or cyber café?)

How often do you interact with your instructor?

How satisfied are you with this program in terms of cost and academics?

What are your major concerns regarding this program?

Describe briefly your comments regarding this program?

APPENDIX B

FACULTIES OF EDUCATION AND EXTENSION RESEARCH ETHICS BOARD

Graduate Student Application for Ethics Review

Name: **Hemlata Chari** **Student ID: 0396956**

E-mail: **hchari@ualberta.ca**

Project Title: **Administrative Issues at YCMOU**

Project Deadlines:

Starting date 01/01/02 Ending date 01/01/04

If your project goes beyond the ending date, you must contact the REB in writing for an extension.

Status:

☐ Master's Project ☐ Master's Thesis X☐ Doctoral Thesis ☐ Other:
(Specify)

The applicant agrees to notify the Research Ethics Board in writing of any changes in research design after the application has been approved.

Signature of Applicant Date 20/01/02

The supervisor of the study or course instructor approves submission of this application to the Research Ethics Board.

Signature of Supervisor/Instructor Date 20/01/02

ETHICS REVIEW STATUS

☑ Review approved by Unit Statutory member/Alternate

☐ Review approved by Research Ethics Board

☐ Application not approved

Signature of REB Member Date January 21, 2002